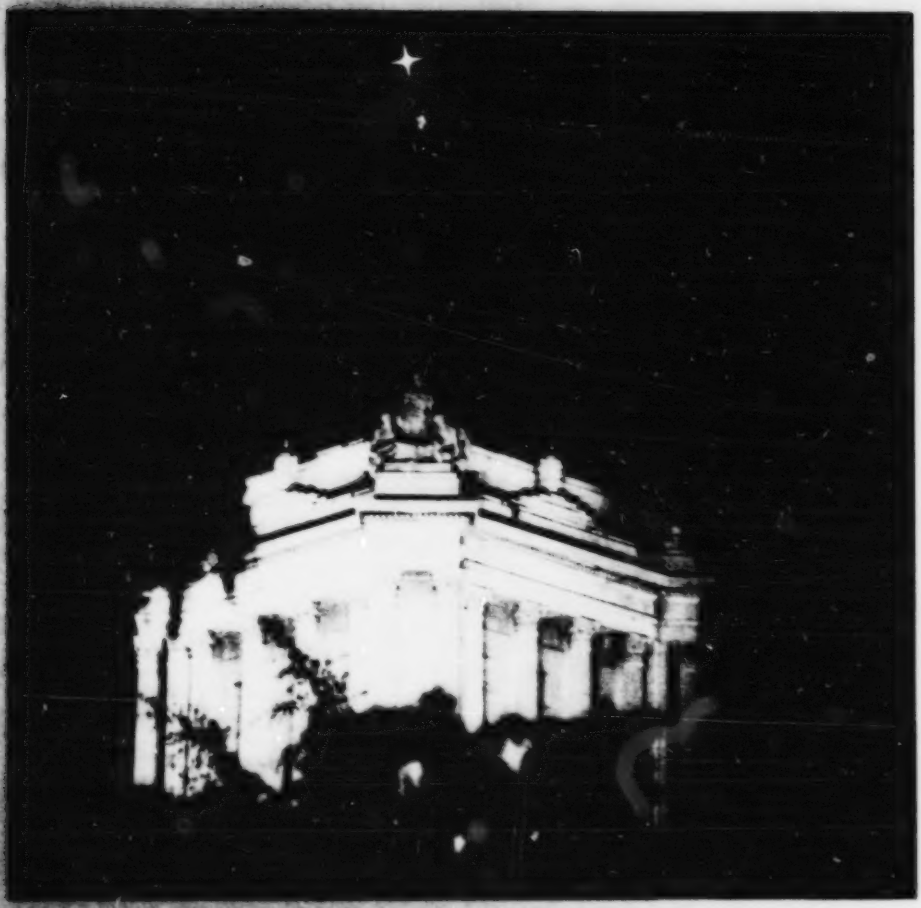
Manitoba Facts '88



Manitoba

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MANITOBA FACTS '88

The Golden Boy, standing in the pose of a runner on top of the dome of the Legislative Building in Winnipeg, is probably Manitoba's best-known symbol. He embodies youth and enterprise, and recalls the spirit of optimism of the period before the First World War when the building was designed. He carries a sheaf of grain in his left arm, symbolizing Manitoba's most important industry, agriculture. In his right hand the Golden Boy holds high a torch, like a messenger in Greek mythology, calling on youth to enter the race. He faces north, toward Manitoba's rich and varied natural resources, the keys to the province's future. The top of his torch, 77 metres (255 feet) above ground, was for many years the highest point in Winnipeg.

Sculpted by Charles Gardet of Paris and cast in 1918, the Golden Boy suffered many dangers and delays before reaching Winnipeg. The foundry where he was cast was partially destroyed by wartime bombs, though he was not damaged. Then the ship that was to carry him to Winnipeg was taken over as a troop transport and the Golden Boy made many trans-Atlantic voyages in the ship's hold before landing in Halifax at war's end. He was in place atop the dome when the Legislative Building was officially opened in 1920.

The Golden Boy was plated in 23.5-carat gold in 1951 to protect him from the elements. His torch was electrically lit in 1970, to mark Manitoba's Centennial, and has been a beacon in the Winnipeg skyline since then.

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MANITOBA PREMIERS

Alfred Boyd
Sept. 1870—Dec. 1871

Marc A. Girard
Dec. 1871—Mar. 1872
July—Dec. 1874

H.J.H. Clarke
Mar. 1872—July 1874

Robert A. Davis
Dec. 1874—Oct. 1878

John Norquay
Oct. 1878—Dec. 1887

D.H. Harrison
Dec. 1887—Jan. 1888

Thomas Greenway
Jan. 1888—Jan. 1900

H.J. Macdonald
Jan.—Oct. 1900

Rodmond Roblin
Oct. 1900—May 1915

T.C. Norris
May 1915—Aug. 1922

John Bracken
Aug. 1922—Jan. 1943

Stuart S. Garson
Jan. 1943—Nov. 1948

D.L. Campbell
Nov. 1948—June 1958

Duff Roblin
June 1958—Nov. 1967

Walter Weir
Nov. 1967—July 1969

Edward Schreyer
July 1969—Oct. 1977

Sterling R. Lyon
Oct. 1977—Nov. 1981

Howard Pawley
Nov. 1981—May 1988

Gary Filmon
May 1988

MANITOBA'S HISTORY

GEOLOGICAL HISTORY

The land we know as Manitoba has gone through many geological changes since the earth was formed, about 4,600 million years ago. As the crust of the earth evolved, great mountain chains were developed, but as a result of wind and water action they were eroded away into a flat plain. Volcanoes, as well as marginal seas, developed 3,000 million years ago and again about 2,000 million years ago, and their rocks were piled high into mountain chains which were in turn eroded and buried beneath younger rocks. Over the next 1,000 million years, during a period known as the Precambrian eon, the Manitoba landmass remained stable and was gradually eroded into a vast, flat plain. Large expanses of rock formed during this period can still be seen in the Precambrian Shield. During this time the major metallic mineral deposits of Manitoba, such as those found at Flin Flon, Thompson, and Lynn Lake, were formed.

About 570 million years ago began a period of the earth's history called the Phanerozoic Eon (time of evident life). The first portion of this period, known as the Paleozoic Era (time of old life), was marked in Manitoba by gentle repeated advance and retreat of vast continental seas, but not by further periods of mountain building such as characterized Precambrian time.

Paleozoic seas first covered Manitoba about 570 million years ago, when sands and shales of the Cambrian Period were deposited. The first well-preserved fossil shells are found in Cambrian strata. Later gentle uplife and erosion, however, removed most of these strata from Manitoba, so the first sedimentary limestone rocks preserved are those of the Ordovician Period (about 440-500 million years ago). These limestones include the well-known Tyndall building stone. The next strata laid down were the dolomites of the Silurian period, when the first sea animals with backbones (vertebrate fish) appeared.

Following a period of gentle uplift and erosion approximately 395 million years ago, seas of the Devonian period advanced over much of Manitoba. Limestones and dolomites were deposited, along with widespread beds of salt and potash and local, thick coral and algal reefs. The Devonian is sometimes called the Age of Fishes because of their prolific development at this time. Land plants also developed for the first time.

The Early Carboniferous, or Mississippian period, began about 345 million years ago. During this time, land plants proliferated and the first major coral beds began to form. Seas once again covered Manitoba and the decaying bodies of the abundant tiny animals that lived in the sea were deposited in the sediments and eventually transformed into oil, which we now find trapped in Mississippian rocks in the Virden area. During the interval from 310 to 180 million years ago, the area was gently uplifted, tilted slightly, and subjected to considerable erosion.

Beginning about 180 million years ago, Mesozoic (intermediate life) formations of the Jurassic period were deposited. In Manitoba, these beds consist primarily of sands and shales, from debris that was being stripped from rising mountain ranges far to the west, in what is now British Columbia. Following another short period of uplift and erosion, upper Mesozoic sands and shales of the Cretaceous period were deposited. This material forms the hills of southern and western Manitoba — the Pembina, Riding, Duck, and Porcupine Mountains.

Although the Mesozoic era has been called the Age of Reptiles, we have no record of dinosaurs in Manitoba, only large marine reptiles such as the plesiosaurs and mosasaurs that roamed the seas. Remains of these creatures have been found preserved in thin beds of bentonite or volcanic ash, in quarries in the Morden area. Warm-blooded mammals, birds, and modern plants began to appear in Mesozoic times. About 65 million years

ago, at the beginning of the Cenozoic (modern life) period, all of the great Mesozoic dinosaurs and most of the marine reptiles suddenly disappeared; and warm-blooded mammals, birds and modern plants, particularly grasses (including forage and cereal grain plants), became dominant. The only limited occurrence of Cenozoic strata in Manitoba is at Turtle Mountain.

The final great event that shaped the face of Manitoba was the Ice Age. For about a million years great sheets of ice slowly scraped across the land, pushing rock, sand and earth in front of them. This material, known as glacial till, covers much of what is now Manitoba.

As the last glaciers melted, the water could not drain into what is now Hudson Bay because the ice blocked this outlet, so it formed several glacial lakes. The biggest of these was Lake Agassiz, which covered more than half of Manitoba and part of Saskatchewan, and extended far into the northern United States. As the lake receded, it left a number of abandoned beaches, many of which can still be seen. Lakes Winnipeg, Manitoba, and Winnipegosis are remnants of this great glacial lake.

EARLY HISTORY

The northward retreat of the massive ice sheets and the recession of glacial Lake Agassiz made southern Manitoba suitable for human habitation. Archaeological evidence indicates that the first Manitobans entered the southwestern corner of the province between 10,000 and 13,000 years ago. These people were organized into small bands of nomadic hunters, who wandered far in search of their prey — mammoths, mastodons, big-horned bison, camels, and horses. Recently freed from the grip of the last Ice Age, southern Manitoba presented a formidable environment, which at first failed to attract these animals in large numbers. Not surprisingly, the hunters who depended on them for their livelihood did not find the province ideal hunting ground and visited only infrequently.

But the warming trend that ended the Ice Age produced a rich grassland in much of southern Manitoba. This provided a bountiful supply of food for the now-extinct giant bison that roamed over much of the mid-continent. The abundance of game, and possibly also the increasing frequency of droughts in the central North American plains, attracted bands of hunters in increasing numbers to southern Manitoba.

Like all of Manitoba's early Native peoples, they made effective use of their environment. Their tools were fashioned from wood, bone, antler, and a variety of flint-like stones. The bison not only was the mainstay of their diet, but also provided them with hides from which clothing and coverings for their dwellings could be made. The hunters followed the migratory herds throughout the course of their seasonal rounds. In summer, bison fed on the lush grasses of the open prairie, but with the onset of colder weather, they moved to the forest edge and river valleys to find shelter from winter winds. This big-game hunting tradition persisted for thousands of years in the southwestern Manitoba grasslands. The introduction of the horse and firearms in the eighteenth century merely permitted the intensification of an ancient pattern.

In the forests of eastern and northern Manitoba, however, the arrival of newcomers, perhaps as early as 7,000 years ago, marked the beginnings of a new way of life. Unlike their bison-hunting counterparts on the grasslands, the early inhabitants of the Canadian Shield relied upon a diverse array of forest animals, fish, birds, and plants for their livelihood. The origin and eventual fate of these people are somewhat obscure, but the rigorous nature of their environment probably forced them to pursue a way of life not much different from that of the northern Cree who were encountered by European explorers in the same region.

For a time, it was thought that the finely wrought copper tools found in the forests of eastern Manitoba and as far east as New York State were the earliest evidence of

metallurgy in the world. Although this has recently been disproved, the discovery of copper artifacts in local deposits dating to 4000 B.C. attests to a considerable antiquity. Moreover, as the source of the raw copper was around the shores of Lake Superior, it is clear that early Manitobans were in contact with peoples in far-flung regions and could import needed raw materials. The recent excavation of a site in eastern Manitoba demonstrated that at least as early as 2000 B.C., people were importing raw copper in the form of nuggets and fashioning it into tools and weapons.

By 500 B.C., the climate of central North America had begun to change. Rainfall was more abundant, summers were cooler and shorter, more snow fell in the long winter months, and storms became more frequent. The northern forests expanded, causing the edge of the prairie to shift south and west. Bison and the hunters who preyed upon them shifted their range accordingly and, with the westward expansion of the eastern forests, peoples from the upper Great Lakes moved into Manitoba. Already adapted to a forest environment, they effectively exploited the resources afforded by the lakes and streams of this province. Unlike their predecessors, these people relied on a very wide variety of plants, animals, birds, and fish as sources of food. They were among the first to use wild rice, a plant that later figured prominently in the Native economy. The newcomers were also responsible for a number of technological innovations: the birch-bark canoe, bow and arrow, and pottery of fired clay. All of these bespeak of a large, stable population closely attuned to life in the forest.

Many of Manitoba's earliest examples of art date back to this time. Throughout much of the north, vertical rock cliffs were used as the canvases upon which depictions of people, animals, and mythical beings were painted with a red pigment, which has withstood at least 2,000 years of weathering by the elements. In the Whiteshell region of southeastern Manitoba, boulders were placed on granitic rock faces to form geometric designs or naturalistic representations. The remote locations of many of these sites suggest that they may have been the scenes of secret rituals and initiations.

The richness of Manitoba's natural environment provided virtually all the needs of its early inhabitants. What it lacked could be acquired through trade. Imports included pipestone from Minnesota, shell from the Gulf of Mexico and British Columbia, volcanic glass from Wyoming, copper from the mines and quarries around Lake Superior, and Knife River Flint from North Dakota. It was probably the exposure to new people, customs, and ideas resulting from these far-reaching trade networks that caused the next major change in the lives of Manitoba's first peoples.

Trade was conducted with the farming villagers of the Dakotas and Minnesota. The northern hunters exchanged unworked hides for corn and elaborately fashioned items of clothing. By the twelfth century A.D., Native Manitobans had begun to grow their own corn, and their fields along the banks of the Red River north of Winnipeg provide the earliest evidence of agriculture in Western Canada. But the environment forced a change in the sixteenth century, as cool, moist conditions made the growing of native varieties of corn unfeasible. By 1600 the ancestors of the modern Cree had returned to the earlier pattern of hunting, fishing, and trapping.

Both environmentally and in human history, the shores of Hudson Bay are significantly different from the lands to the south. Around 3,500 years ago, bands of people from Alaska settled in the extreme north. Evidence of their passing may be found in the very small, intricately made stone artifacts that they used as weapons and tools. The people who made them were the predecessors of the Inuit, whose culture was encountered by the Europeans who first set foot in northern Manitoba early in the seventeenth century.

MODERN HISTORY

The first European to set foot in present-day Manitoba was Captain Thomas Button, who in 1612 wintered two ships at Port Nelson on Hudson Bay, near the mouths of

the Nelson and Hayes Rivers. In 1690 and 1691 Henry Kelsey explored northern Manitoba from Hudson Bay as far as the Saskatchewan River, near The Pas. A French party led by La Verendrye explored the Red and Winnipeg rivers in the years 1733 to 1738 and built several outposts.

In 1670, King Charles II of England gave sovereignty over a large part of the continent to "The Governor and Company of Adventurers of England Trading into Hudson's Bay," or the Hudson's Bay Company as it has come to be known.

The company set up fur trading posts to exploit the country's wealth. Among their major posts were York Factory, at the mouths of the Nelson and Hayes Rivers, and Prince of Wales's Fort at the mouth of the Churchill River. The latter was a large stone fort, built between the years 1731 and 1771 and captured and badly damaged by the French in 1782. The Hudson's Bay Company then built Fort Churchill in 1783 and continued to use that site until 1933.

After 1740, in the wake of La Verendrye, traders from New France pushed across the southern part of Manitoba, but later were replaced by teams of English-speaking "pedlars" and French-Canadian voyageurs who drove swift canoes from Montreal to the West and back, seeking furs.

Intense rivalry for furs developed between the Montreal-based North West Company and the Hudson's Bay Company. Their battle for the fur trade resulted in both companies building forts throughout the plains and Alexander Mackenzie, an employee of the North West Company, pushed the chain of forts into the Rocky Mountains and the Arctic. The rivalry came to its height in the Red River and Assiniboine River valleys in Manitoba, where open warfare broke out.

During the same period the first agricultural settlement was established by Lord Selkirk, a Scottish nobleman, who sent a number of colonists to land he had secured from the Hudson's Bay Company in 1811. The settlers sold their agricultural produce to the fur traders based at Fort Douglas, in what is now the Point Douglas area of the city of Winnipeg. Severe winters, flooding of the Red and Assiniboine Rivers in some years, and drought in others produced serious hardships for the settlers.

The colony was also caught in the fur trade war and in 1816 Governor Robert Semple and 19 colonists were killed in a battle with the Metis at Seven Oaks, in what is now the suburb of West Kildonan. The Metis had been urged on by the North West Company. However, the settlement survived and its permanent way of life materially affected the semi-nomadic way of life of Red River.

In 1869 the Hudson's Bay Company agreed to relinquish control of its territory in western Canada upon payment of £300,000 by the Canadian government. However, no clear terms were spelled out for the people of the Red River area and during negotiations on their status resistance developed in the colony. The Metis, a mostly French-speaking people of white and Indian blood, opposed the Canadian proposals under the leadership of Louis Riel. Riel succeeded in uniting both the French and English-speaking groups and established a locally elected provisional government in December 1869.

Delegates of this provisional government negotiated terms with the federal government that led to Parliament passing the Manitoba Act May 12, 1870, under which Manitoba joined the other provinces in Confederation. The Act was proclaimed, making Manitoba a province of Canada, on July 15, 1870.

When Manitoba came into existence in 1870 it was known as the "postage-stamp" province and was only about one-eighteenth of its present size. Its western boundary was longitude 99° W. (just west of Crystal City-Gladstone); the northern boundary was latitude 50°30' (Oak Point-Winnipeg Beach); the eastern boundary was 96° W. (about Whitemouth-Piney). The southern boundary was the 49th parallel, the border with the

United States. However, the eastern and western boundaries became very awkward because they did not correspond with land survey lines, so in 1877 they were shifted slightly, to the first township lines west of the two lines of longitude.

In 1881 the western boundary was extended to its present location and the northern boundary to latitude 52°50'. The eastern boundary was not determined until 1884, when the Judicial Committee of the Privy Council in England settled a dispute between Ontario and the federal government (involving Manitoba) by ruling that it should be set at the Northwest Angle of the Lake of the Woods.

In 1912 Manitoba's present northern boundary was set at the 60th parallel.

The years 1889-90 saw the development of one of the most vexing problems in the province's history — the Manitoba School Question — and a related one concerning official languages. In 1890 the legislature passed the Public Schools Act, which abolished the dual school system and teaching in the French language. The issue was whether it had the power to do away with the denominational schools established in 1871 under the Manitoba Act. The legislature in 1890 also abolished the use of French in its debates and proceedings, and in the courts.

The Manitoba School Question was a major constitutional, legal, and political controversy for Canada during the next six years. In 1897 a compromise was worked out, providing for religious exercises under certain conditions and the use of languages other than English for teaching. However, the number of languages used multiplied to the point that it was believed not only Manitoba's school system was threatened, but also her position in Confederation. In 1916 the legislature abolished the use of all languages except English in the schools. The matter remained a topic of controversy for many years.

In 1970 changes in provincial legislation again made French a language of instruction in Manitoba public schools. The Supreme Court of Canada in 1979 ruled invalid Manitoba's Official Language Act of 1890.

PEOPLE OF MANITOBA

Manitoba enjoys a rich population mix, with people from every continent and virtually every country in the world providing a wide infusion of cultures and a broadened heritage. The first settlers to join the original Native population were English-speaking and French-Canadian fur traders, boosted by agricultural Selkirk settlers from Scotland in 1811. Agrarian settlement became a major factor after 1870, with the influx of English-Canadians from Ontario, followed by additional French-Canadians from Quebec via New England and others direct from Quebec and France. Mennonites from Russia first arrived in 1874, followed by Icelanders the next year. In 1891 the cosmopolitan nature of Manitoba was further broadened with the arrival of the first of substantial numbers of Ukrainians. An immigration wave from many European countries began about 1896 and lasted until 1914. Immigration on a large scale resumed in the 1920s, to about 1930. It was boosted by a modest influx shortly after World War Two and, particularly in the past two decades, by people from other continents, including the Caribbean, South America, Africa, and Asia, to add to the multicultural make-up of the province.

Statistics Canada compiled 1986 census data for population by ethnic origins under both single and multiple-origin categories. In the following list, first single-origin (e.g. German) and then multiple-origin (e.g. German and other groups) figures are given for each group included:

English: 158,190/208,745; French: 55,730/84,970; North American Indian (some reserves incompletely or not enumerated): 40,960/14,990; Irish: 24,235/126,055; Metis: 14,270/19,010; Scottish: 40,825/150,445; Welsh: 1,050/6,360.

Belgian: 4,255/7,070; Chinese: 8,730/2,010; Filipino: 15,815/1,525; German: 96,165/88,815; Hungarian: 3,230/3,660; Indian-Pakistani: 7,165/1,700; Italian: 8,225/6,970; Jewish: 13,875/4,400; Netherland: 27,875/29,495; Polish: 22,015/46,525; Portuguese: 7,340/1,090; Scandinavian: 15,560/41,580; Ukrainian: 79,945/78,380.

Here is how Manitoba's population has grown since Confederation:

1871	25,228	1951	776,541	1981	1,026,241
1891	152,506	1961	921,686	1985	1,070,300
1911	461,394	1971	988,000	1986	1,071,232
1931	700,139	1976	1,021,500	1987	1,079,400

In its early years Manitoba was an agricultural province, and the bulk of the population lived on farms or in small rural villages. A shift to urban living was noticeable as early as the turn of the century and rapidly increased in scope, so that today 70 per cent of the population live in large urban centres.

More than half the population lives in Winnipeg, Manitoba's capital and its main manufacturing and distribution centre, which has about 614,500 people.

Other Manitoba cities and their populations (1986 census) are Brandon, 38,708; Flin Flon, 7,243; Portage la Prairie, 13,198; and Thompson, 14,701.

TOWNS — Altona, 2,958; Beausejour, 2,535; Birtle, 850; Boissevain, 1,572; Carberry, 1,544; Carman, 2,500; Churchill, 1,217; Dauphin, 8,875; Deloraine, 1,134; Emerson, 725; Gillam, 1,909; Gimli, 1,681; Gladstone, 951; Grandview, 941, Hartney, 523; Killarney, 2,318; Leaf Rapids, 1,950; Melita, 1,239; Minnedosa, 2,520; Morden, 5,004; Morris, 1,613; Neepawa, 3,314; Oak Lake, 399; Rapid City, 447; Rivers, 1,157; Roblin, 1,913; Russell, 1,669; Selkirk, 10,013; Snow Lake, 1,837; Souris, 1,751; Steinbach, 7,473; Stonewall, 2,349; Swan River, 3,946; The Pas, 6,283; Virden, 3,054; Winkler, 5,926; Winnipeg Beach, 548.

VILLAGES — Arborg, 1,018; Benito, 451; Binscarth, 486; Bowsman, 429; Cartwright, 384; Crystal City, 487; Dunnottar, 262; Elkhorn, 534; Erickson, 565; Ethelbert, 411; Garson, 313; Gilbert Plains, 816; Glenboro, 719; Gretna, 503; Hamiota, 816; Lac du Bonnet, 1,021; MacGregor, 854; Manitou, 856; McCreary, 578; Minitonas, 559; Niverville, 1,452; Notre Dame de Lourdes, 628; Pilot Mound, 819; Plum Coulee, 677; Powerview, 724; Riverton, 635; Rossburn, 664; Shoal Lake, 832; Somerset, 534; St. Claude, 610; St. Lazare, 372; St. Pierre-Jolys, 912; Ste. Anne, 1,402; Ste. Rose du Lac, 1,030; Teulon, 953; Treherne, 762; Waskada, 349; Wawanesa, 502; Winnipegosis, 832.

UNINCORPORATED COMMUNITIES — Berens River, 919; Camperville, 639; Cranberry Portage, 960; Cross Lake, 2,050; Duck Bay, 696; East Selkirk, 985; Lorette, 1,092; Lynn Lake, 2,142; Moose Lake, 868; Norway House, 3,000; Oakbank, 1,277; Pinawa, 2,011; Pine Falls, 885; St. Adolphe, 928; South Indian Lake, 842; Stony Mountain, 1,313; Wabowden, 650.

In 1987 there were 17,438 live births in Manitoba (16.3 per thousand population), 8,782 deaths (8.2 per thousand), 7,994 marriages (7.5 per thousand), and 119 stillbirths (6.8 per thousand live births).

GEOGRAPHY

Manitoba is the easternmost of the three Prairie provinces. It is bounded on the north by the Northwest Territories, on the west by Saskatchewan, on the south by the American states of North Dakota and Minnesota, and on the east by Minnesota and Ontario. On the northeast, Manitoba has 645 kilometres of coastline on Hudson Bay.

The area of Manitoba is 649,947 km^2 (250,946 square miles). The land surface is 548,355 km^2 (211,721 square miles) and water 101,592 km^2 (39,225 square miles). The province extends 1,225 km from north to south. Its width on the U.S. border is 449 km, at the widest point 793 km, and on the northern boundary 418 km.

Manitoba is comparatively level, with land elevations rising gradually south and west from sea level at Hudson Bay. Most of the province has an elevation between 150 and 300 metres. The highest point in Manitoba is Baldy Mountain, located in Duck Mountain Provincial Park, with an altitude of 831 metres. The altitude at Brandon, in southwestern Manitoba, is about 390 metres, while at Flin Flon, in the west-central part of the province, it is about 290 metres.

The agricultural land lies in a triangular-shaped block in the southern part of the province. One side of the triangle runs along the American-Manitoba border, the second along the Saskatchewan-Manitoba boundary, while the third cuts diagonally across the province from the southeast corner to a point west of Lake Winnipegosis. The bulk of Manitoba's population lives in this area.

The northern three-fifths of Manitoba lies within an entirely different geological formation, the rocky Precambrian Shield. The terrain is very rugged, is laced with streams and rivers, has thousands of lakes, and there are large tracts of swamp. Forest, consisting mainly of spruce, covers most of this region, which is the principal source of Manitoba's mineral wealth, pulpwood, fish, and fur-bearing animals. Beyond this, roughly north of a line drawn west from Churchill, is the Arctic tundra. The tundra can support only low-growing vegetation because only the top few feet of the soil thaw out in spring. Under this active layer lies ground that is always frozen, called permafrost. A few species of animals, such as Arctic fox, wolves, caribou, lemmings, and polar bear, live in the region. Substantial numbers of birds migrate into the tundra during the spring, but leave for the south with the coming of fall.

All of Manitoba's waters flow to Hudson Bay. The principal rivers are the Nelson, Churchill, and Hayes Rivers, and their tributaries, which flow directly into Hudson Bay; the Saskatchewan, Red, and Winnipeg Rivers, which drain into Lake Winnipeg; and the Assiniboine, a tributary of the Red, which runs most of its length through the agricultural belt of Manitoba.

Before southern Manitoba was settled for agricultural purposes, much of it was part of a huge swamp that covered an area extending south from Lakes Winnipeg and Manitoba to the United States. This was caused by flooding on the Red, Assiniboine, Pembina, and other rivers that wound through the flat plain, augmented by runoff from snow and from summer rains. The water was retained by heavy grass cover and flowed back into the rivers very slowly.

An extensive system of drainage ditches had to be constructed throughout south-central Manitoba to make the region suitable for cultivation. This system is now maintained by municipalities and the province, and additions and improvements are constantly being made.

To protect Winnipeg and other centres from floods, a system of dikes and channels has been constructed. The largest channel is the Red River Floodway, which when opened diverts a large part of the water of the Red River around Winnipeg. This 48-kilometre channel, 305 metres wide, was started in 1962 and completed in 1968, at a cost of $63,000,000. The amount of earth removed was about 30 per cent greater than earth excavated in building the St. Lawrence Seaway Canadian section.

On the Assiniboine River the Portage Diversion was constructed just west of Portage la Prairie to reduce the threat of flooding to that city and Winnipeg, as well as to farmland between the two cities. The diversion is a 29-kilometre channel to Lake Manitoba that carries floodwater diverted from behind a 425-metre-long earth fill dam on the river. A control structure in the dam determines the amount of water that continues down the river, while a control structure on the channel determines the amount of water to be diverted to Lake Manitoba.

On the upper reaches of the Assiniboine a huge reservoir was constructed near Shellmouth to control flood waters along the entire length of the river. The Shellmouth Dam is made of earth. It is 21 metres high and 1,280 metres long, stretching across the Assiniboine River valley. The dam created the Lake of the Prairies, which is more than 48 kilometres long and extends back into Saskatchewan.

Both these projects have been in use since 1970.

CLIMATE

Manitoba's climate is characterized by warm, sunny summers and cold, but bright, winter days. Afternoon temperatures in July and August average 25 degrees Celsius, but mid-winter daytime readings almost always remain well below freezing. Wide variations from the average values (for Winnipeg) given in the table below are quite common in all seasons.

Mean (average) January temperatures in Brandon are minus 19.7 degrees and the monthly mean for July is 18.8 degrees. At The Pas, January averages — 22.7 and July 17.7 and at Thompson the averages are — 26.6 and 15.6. At Churchill on the Hudson Bay coast, the mean for January is — 27.5 and for July 11.8.

A high percentage of sunny days is a distinguishing feature of the climate of the Canadian prairies, including southern Manitoba.

More than half of the annual precipitation falls in the summer months, most frequently in the form of brief but sometimes heavy showers. Most of southern Manitoba receives 110 to 140 centimetres of snow annually (Winnipeg 126 cm, Brandon 117 cm). The heaviest snowfalls, close to 160 cm, are recorded in northeastern Manitoba east of a line from Bissett to Churchill, and in the Duck and Riding Mountains.

CLIMATIC VALUES FOR WINNIPEG

	Average Temperature (Celsius)		Total Precipitation				Bright Sunshine (Hours)	
			Rain (mm)		Snow (cm)			
Month	**1987**	**Normal**	**1987**	**Normal**	**1987**	**Normal**	**1987**	**Normal**
Jan.	– 11.8	– 19.3	T	0.2	11.0	23.7	99.2	121.2
Feb.	– 6.4	– 15.6	T	0.7	42.2	18.9	58.5	144.2
Mar.	– 4.7	– 8.2	1.4	3.3	12.6	21.1	155.7	176.2
Apr.	8.8	3.4	0.8	27.1	T	11.3	282.3	219.8
May	14.8	11.3	31.6	65.2	0	2.5	276.6	265.6
June	19.0	16.8	55.2	80.1	0	T	366.5	276.1
July	20.0	19.6	130.1	75.4	0	0	266.8	315.6
Aug.	17.2	18.3	97.1	75.2	0	0	263.0	283.3
Sept.	14.1	12.4	20.0	53.0	0	0.2	192.7	184.6
Oct.	3.4	6.1	23.2	25.9	10.4	5.2	158.9	151.5
Nov.	– 0.8	– 4.5	11.0	5.5	1.0	21.9	121.6	90.7
Dec.	– 8.2	– 14.0	5.8	0.9	10.2	20.7	62.9	92.6
MEAN	5.5	2.2						
Annual Totals			376.2	411.0	87.4	125.5	2304.7	2321.4

THE ECONOMY

The earliest economic activity in Manitoba was the exchange of furs by Indians for French and British trade goods. Furs were exported to Europe by the companies that traded into what is now Western Canada.

Agriculture on a commercial scale began to develop as the Red River Settlement grew, but at first agricultural trade was confined to exchanges with other Prairie settlements or with Hudson's Bay Company posts. Wheat was first exported from the West in 1876 (a Manitoba shipment sent to Toronto) and quickly became a major export crop.

The influx of settlers into Manitoba after 1870 created a demand for lumber for farmsteads, barns, and commercial buildings, which started Manitoba's forest industry. After 1886, timber was shipped to Eastern Canada on the Canadian Pacific Railway.

Periodic mining of lignite coal took place on a small scale in southwestern Manitoba between 1883 and 1908 (and again during the Great Depression). However, the first major mining activity occurred in the Flin Flon area, where copper, zinc, and other minerals were discovered in 1915. All the province's mines are in the Precambrian Shield, which arches across Manitoba from the southeast to the northwest. The first major oil discoveries in the province were made in the 1950s, in the southwest near Virden.

Railways and Winnipeg's strategic location established the city as a major distributing centre and later as a manufacturing centre. Manitoba has developed a diversified economy, with manufacturing being the largest industry in the goods-producing sector in employment, wages paid, and value of production.

Manitoba's estimated gross provincial product in 1987 was $20.2 billion. Total public and private investment was $4.9 billion and per capita personal income was an estimated $16,775.

GROSS PRODUCTION: GOODS-PRODUCING INDUSTRIES

Year	Manufacturing (1)	Construction (1)	Agriculture (2)	Mining (3)
		(millions of dollars)		
1975	2,581	1,012	1,101	534
1976	2,766	1,233	1,083	515
1977	2,817	1,386	1,209	569
1978	3,278	1,502	1,517	468
1979	3,915	1,470	1,580	653
1980	4,357	1,398	1,669	821
1981	4,966	1,539	1,991	658
1982	4,854	1,422	2,043	550
1983	4,858	1,645	1,985	694
1984	5,196	1,873	2,302	817
1985	5,507	2,428	2,431	861
1986	5,611	2,745	1,964	764
1987	5,706P	2,851P	1,777P	1,016P

P Preliminary

Sources:

(1) Statistics Canada Catalogues 31-001 (Manufacturing) and 62-007 (Construction).
(2) Manitoba Agriculture
(3) Manitoba Energy and Mines

EMPLOYMENT BY INDUSTRY, MANITOBA
(Thousands — Annual Averages)

Industry	1986	1987
Agriculture	46	41
Other Primary Industries	8	8
Manufacturing	57	57
Construction	24	25
Trade	87	89
Transportation and Utilities	47	47
Finance	27	29
Service	158	161
Public Administration	38	40
Total Employment	**493**	**497**

Source: *Statistics Canada, Catalogue 71-001 (Labour Force).*

AGRICULTURE

From the earliest days of settlement, agriculture has been one of Manitoba's most important industries and sources of income and employment. It was a major occupation of the Indians before the coming of the French and British, and the early fur trading posts in what is now Manitoba were among the first agricultural centres on the Prairies. The first major farming operations were established in 1812 by the Selkirk settlers from Scotland, and agriculture became firmly established as the Red River Settlement developed. Most of the pioneers who flocked to Manitoba between 1870 and 1900 were farmers or became farmers, and by 1900 they had developed the bulk of the prime agricultural land in the province.

Wheat continues to be the most important Manitoba crop, accounting for almost 40 per cent of crop production value, followed by barley and rapeseed (canola). Other major crops are flaxseed, oats, and rye. Despite the dominance of grain production, Manitoba agriculture is more diversified than the other Prairie provinces, with special crops, horticulture, and livestock making a significant contribution to total provincial agriculture income. Manitoba dominates Canadian production of flaxseed, sunflower seeds, and buckwheat.

The major grain and oilseed crops are grown throughout the province, while special crops, such as the pulses and horticulture crops, are concentrated in the area bounded by the Red River Valley, Brandon, Portage la Prairie, and the American border. Livestock production in Manitoba is more prevalent in the southwest, northwest, and Interlake regions and most of the province's dairy industry is located south of Winnipeg.

In 1987 the estimated total value of agricultural production in Manitoba was $1.8 billion. Crop production was valued at $1 billion; livestock, $724 million; honey, $8.3 million; miscellaneous, $24 million.

The 1986 census reported 27,336 farms in Manitoba, with an average area of 700 acres per farm. Total farmed area in 1987 was 19.1 million acres.

In 1987 there were 304 licensed grain elevators in the province, with a total capacity of 1,456,240 tonnes. Of these, 288 were primary elevators, with a capacity of 1,106,260 tonnes; 13 were process elevators, with a capacity of 152,880 tonnes; and there were three terminal elevators, with a capacity of 197,100 tonnes.

The 200-acre Union Stockyards in the Winnipeg suburb of St. Boniface are the largest in Canada and represent an investment of more than $5 million in auction rings, scales,

test chutes, and other facilities necessary for a modern livestock market. The yard conducts daily auctions, handles railway livestock loads, is a connecting point for rail and truck shipments, and has a storage capacity of 25,000 head of all classes of livestock.

There are three Agriculture Canada research stations in Manitoba.

The Brandon Research Station, established in 1886 as one of the original five experimental farms, covers 1,764 acres and has 16 scientists and 68 full-time employees. Current research comprises two main disciplines: plant science and animal science. In plant science, research covers breeding, physiology, and management of cereal, oilseed, and forage crops. Other studies examine soil fertility, plant nutrition, soil management and conservation, agronomy, and weed control. Programs in animal science focus on breeding in beef cattle, as well as nutrition, physiology, genetics, and management in swine. Meats research concerns carcass evaluation, product quality, consumer acceptance, and processing capabilities.

The research station at Morden, established in 1915, comprises 627 acres and a staff of 16 scientists. Research with crops, including linseed flax, sunflowers, field peas, and buckwheat, is aimed at developing new varieties and management practices that will increase yield, advance maturity, and improve both disease resistance and quality of the crops. Exotic crops from other parts of the world and native species are under study, with the objective of identifying new crops that could contribute to Canadian agriculture. In horticulture, research is devoted to improving ornamentals, potatoes, and vegetables for prairie conditions.

The third station is located on the campus of the University of Manitoba, in Winnipeg, with an experimental plot of 260 acres at Glenlea, 22 kilometres south of campus. The Winnipeg station was founded in 1925 and employs 36 scientists with a supporting staff of 60. The major fields of research are cereal breeding and genetics, control of cereal diseases by plant resistance, protection of grain and cereal products from pests during storage, and control of insects of field crops by the integration of biological, cultural and chemical means. The station also provides a quality screening service for Canadian cereal breeding programs.

CONSTRUCTION

Statistics Canada reports that $854.5 million worth of building permits were issued in Manitoba in 1987, compared with $809.8 million in 1986. The value of residential permits was $511 million ($520.6 million in 1986); industrial permits, $37.6 million ($24.1 million in 1986); commercial permits, $229.6 million ($171.7 million in 1986); institutional-government permits, $81.4 million ($93.4 million in 1986). There were 8,174 housing starts in 1987, compared with 7,699 in 1986. These comprised 4,631 single-family units, 86 duplex units, 227 row units, and 3,230 apartment units.

Building permits in Winnipeg were valued at $657.4 million, compared with $611.3 million in 1986. Residential permits were valued at $377.7 million, industrial permits, $25.4 million; commercial permits, $194.8 million; institutional-government permits, $59.5 million. There were 6,508 housing starts in Winnipeg in 1987, compared with 5,069 in 1986.

HYDRO

Manitoba Hydro, a Crown corporation, is responsible for the generation, transmission, distribution, and sale of electricity in all of Manitoba, except for the inner section of the city of Winnipeg which is served by the city-owned utility Winnipeg Hydro. The two utilities are electrically interconnected and operate as an integrated system.

Formed in 1949 as the provincial authority to co-ordinate future power developments, Manitoba Hydro was initially administered by the Department of Mines and Natural

Resources. It became a separate entity in 1951 with the appointment of the first Manitoba Hydro-Electric Board. In April 1961, it was amalgamated with the Manitoba Power Commission, the provincial electrical distribution utility.

Manitoba Hydro serves 354,800 customers, who consumed 11.7 billion kilowatt hours of electricity in 1987. Winnipeg Hydro serves 90,100 customers, whose 1986-1987 consumption totalled approximately 2.2 billion kilowatt hours. Nearly 99 per cent of the electricity generated in Manitoba is produced from water power.

Manitoba Hydro generates electric power from 11 hydraulic stations, two thermal stations, and 16 diesel stations. Four of the hydraulic stations are on the Winnipeg River about 100 km northeast of Winnipeg. The others are north of the 53rd parallel: one is at Grand Rapids on the Saskatchewan River, 417 km northwest of Winnipeg; four are on the Nelson River at sites known as Jenpeg, Kelsey, Kettle, and Long Spruce, ranging in distance from 519 to 745 km northeast of Winnipeg; and there are two small plants on the Laurie River 745 km northwest of Winnipeg. The two thermal plants, used mainly to meet peak demands, are located in Brandon and Selkirk. The 16 diesel stations are in isolated communities in northern Manitoba.

The installed generating capacity for all Manitoba Hydro's stations is 3.9 million kilowatts. It is estimated that projected development of the Nelson system could yield an additional six million kilowatts of capacity.

Formed in 1906, Winnipeg Hydro operates two hydro-electric generating stations on the Winnipeg River, with a capacity of 140,600 kW, and a thermal station in Winnipeg with 50,000 kW capacity. A central steam heating plant supplying heat to part of downtown Winnipeg is operated in conjunction with the thermal plant. About 55 per cent of Winnipeg Hydro's energy requirements are purchased from Manitoba Hydro.

There are about 76,000 km of transmission and distribution lines in Manitoba Hydro's electrical network, including interconnections with Saskatchewan, Ontario, and the United States, and 1,875 km in the Winnipeg Hydro network.

NATURAL GAS

The natural gas used in Manitoba comes from Alberta and satisfies about 31 per cent of Manitoba's total energy requirements, compared with 42 per cent from oil and 24 per cent from electricity. About 60 per cent of Manitoba homes are heated by gas.

In 1987 natural gas sales were approximately 1.54 billion cubic metres, of which about 540 million were for residential use, 533 million for commercial use, and 470 million for industrial requirements.

MANUFACTURING

Manufacturing is an important sector of the Manitoba economy in its contribution to provincial production and in number of jobs generated. About 1,605 establishments are engaged in manufacturing, accounting for about 12 per cent of total provincial employment. In 1987 they employed 57,000 people and produced goods valued at approximately $5.71 billion.

Although the Selkirk settlers in the early 19th century supplied some of their needs through fledgling "factories," the first large-scale manufacturing operations in Manitoba developed about 1900, as meat packing plants, clothing factories, lumber mills, metal-working shops, and machine shops were built — chiefly in Winnipeg — to supply demand from all over Western Canada. Today manufacturing in Manitoba is widely diversified. Most major industries are represented in production, and there are strong supply and processing links with agriculture in the province and with the growing, resource-based economies of the other Western provinces. The most important industries are food and

beverages, machinery, primary metal and metal fabricating, transportation equipment, and clothing, which together produce about two-thirds of all manufacturing output and employment in Manitoba. Winnipeg establishments produce about 73 per cent of provincial manufacturing shipments and Brandon establishments four per cent.

The manufacturing sector in Manitoba is geared to both domestic and foreign markets. An estimated 48 per cent of output is exported from the province to other parts of Canada and another 10 per cent is sent to markets outside Canada. Major export products include agricultural equipment, aircraft engineering services and parts, transportation equipment, and clothing.

ESTIMATED VALUE OF MANITOBA FACTORY (MANUFACTURING) SHIPMENTS
(Millions of Dollars)

Industry	1983	1984	1985	1986	1987P
Food	1,448	1,535	1,710	1,710	1,576
Beverages	152	163	178	192	196
Clothing and Textiles	344	361	387	399	425
Wood, Furniture and Fixtures	250	241	265	299	328
Paper and Allied	218	250	274	300	329
Printing, Publishing	279	311	314	344	370
Fabricated Metals	299	290	291	327	369
Machinery	319	392	298	267	247
Transportation Equipment	389	397	460	409	493
Non-metallic Minerals	117	138	155	176	192
Chemical	144	159	184	174	165
Other	899	959	991	1,014	1,017
TOTAL ALL INDUSTRIES	4,858	5,196	5,507	5,611	5,707

P Preliminary
Source: *Statistics Canada, Catalogue 31-001 (Manufacturing).*

TRANSPORTATION AND COMMUNICATIONS

Travel overland on foot and by canoe on the water were the first methods of transportation for both the original Indian inhabitants of Manitoba and the early fur traders. As the use of the horse (introduced into North America by the Spanish) spread among the plains Indians, they became much more mobile and developed a more nomadic way of life.

In the early 19th century, the larger York boats replaced canoes in the fur trade in Rupert's Land. With several times the cargo capacity of a canoe, the York boat was ideal for freighting furs to the Hudson Bay coast and for carrying supplies and machinery back to the interior fur posts and the Red River Settlement. Steamers plied the Red and Assiniboine Rivers for a number of years after 1859, venturing as far as Fort Ellice (St. Lazare) on the Assiniboine and travelling regularly on the Red River between Winnipeg and settlements in Minnesota. The steamers were driven from the rivers by the railway, but continued to operate for many years on Lake Winnipeg.

Early settlers in Manitoba used Red River carts and stagecoaches for general land transport. Some of the early "roads" used by those vehicles are still evident in the main streets of the city of Winnipeg, which wander north and west to the sites of former fur posts.

The first constructed roads were scratched out from the prairie and bush by horse-drawn scrapers, along grid lines, to facilitate the transport of grain and other agricultural produce. A network of rural roads was built up and gradually improved, and many

present-day Manitoba trunk highways follow the roads developed by the early settlers. By the mid-1920s, roads were being pushed into the mineral-rich north.

When Manitoba was formed in 1870, all roads came under the jurisdiction of the public works department. Municipal roads were turned over to local governments in 1880. In 1910 a provincial highway commissioner was appointed, and in 1912 the legislature passed the Good Roads Act, which allowed municipalities to issue debentures for road construction. This act was the forerunner of legislation that created the provincial highway system.

The increasing use of motor vehicles made hard-surface paving of highways necessary, although it was in the 1950s before paving was carried out on a large scale. By 1965 most trunk highways and some stretches of provincial road had been paved.

Manitoba's first railway was the St. Boniface-Emerson section of the St. Paul, Minnesota and Manitoba Railway, completed in 1878. The first train on this line, which is now part of the Canadian Pacific Railway, arrived in St. Boniface from St. Paul December 7, 1878. From 1880 to 1882, construction of the present CPR transcontinental line (completed in 1885) took place in Manitoba and service in the province began in 1882. The first transcontinental train on the new railway arrived in Winnipeg from Montreal July 1, 1886.

The present Canadian National transcontinental railway was formed out of several lines built to exploit the tide of settlement into Western Canada between 1896 and 1914. By 1914 nearly all of the present-day railways in southern Manitoba were in operation, but lines were built to northern mining communities as recently as the 1950s.

Until the mid-1920s aircraft in Manitoba were used almost exclusively by stunt flyers. Starting in 1925, organized air service developed in western Canada, including Manitoba, with a strong emphasis on northern bush flying. By 1927 there were air bases at a number of communities, including Winnipeg, Lac du Bonnet, and The Pas. A prairie air mail service, using Winnipeg as a terminus, was established in March 1930, but it was discontinued in 1932.

Trans-Canada Air Lines, now Air Canada, was organized in 1937 with Winnipeg as its headquarters. The first air express service in Canada was started out of Winnipeg in September 1938 and the first regular air mail service in October 1938. It was extended to all parts of Canada within a few months.

AIR SERVICES

Air Canada operates frequent passenger and cargo flights daily from Winnipeg to domestic points east and west, with connections to destinations in Europe, Asia, the Caribbean, and the United States. The airline also has a nonstop flight to Chicago, a same-plane, one-stop flight to Los Angeles, and from December to April flights to Montego Bay, Jamaica, and Hawaii.

Canadian Airlines International likewise operates frequent flights from Winnipeg to points east and west, connecting with northern points, Europe, Asia, and South America. The airline also operates flights from Brandon to Thunder Bay and Toronto. From Winnipeg it serves The Pas, Flin Flon, Thompson, Gillam, and Churchill.

Perimeter Airlines, of Winnipeg, operates a daily flight to Red Lake, Ontario and Monday to Friday service to Dauphin. Its northern Manitoba service includes daily flights to Norway House, Island Lake, and St. Theresa Point and flights of varying frequency to Berens River, Cross Lake, Gods Lake Narrows, Gods River, Little Grand Rapids, Oxford House, Poplar River, and Red Sucker Lake.

Northland-Air Manitoba, of Winnipeg, flies daily to Gods Lake Narrows, Island Lake, and St. Theresa Point, and also serves Gods River, Jenpeg, Oxford House, Red Sucker Lake, Thompson, and Sandy Lake, Ontario. Northwinds, of Thompson, operates six days a week between Cross Lake and Norway House. Northway Aviation operates from Winnipeg to Berens River, Bloodvein, Poplar River, and Little Grand Rapids. Keystone Air operates six days a week from Winnipeg to Dauphin and Swan River. Bearskin Air operates six days a week from Winnipeg to Kenora and Sioux Lookout, Ontario.

Calm Air, of Thompson, serves Winnipeg, Brandon, and a number of northern Manitoba communities, and also operates from Churchill and Thompson into the Northwest Territories. Northwest Territorial Airways has three-day-a-week service linking Winnipeg with Yellowknife and Rankin Inlet.

Wardair operates scheduled service year-round to Toronto and a flight to London, England from May to October. It runs charter flights to Hawaii from November to April.

Northwest Orient of Minneapolis, Minn. operates daily flights to the midwest and Florida, connecting at Minneapolis-St. Paul with 55 U.S. destinations.

There are 111 licensed commercial air carriers in Manitoba, working from more than 50 bases in the province. They operate a variety of services, ranging from flight training and crop dusting to regular and chartered passenger and freight service, to dozens of Manitoba points.

Manitoba government air and radio services, established in 1932, operates from three main bases in Winnipeg, Lac du Bonnet, and Thompson, with a radio service shop in Dauphin.

The service provides aerial support for forest fire suppression, an air ambulance service, the Northern Patient Air Transportation program, and Emergency Measures Organization. It transports government staff and freight and operates air services for surveys and patrols. Thirteen aircraft make up the division's fleet.

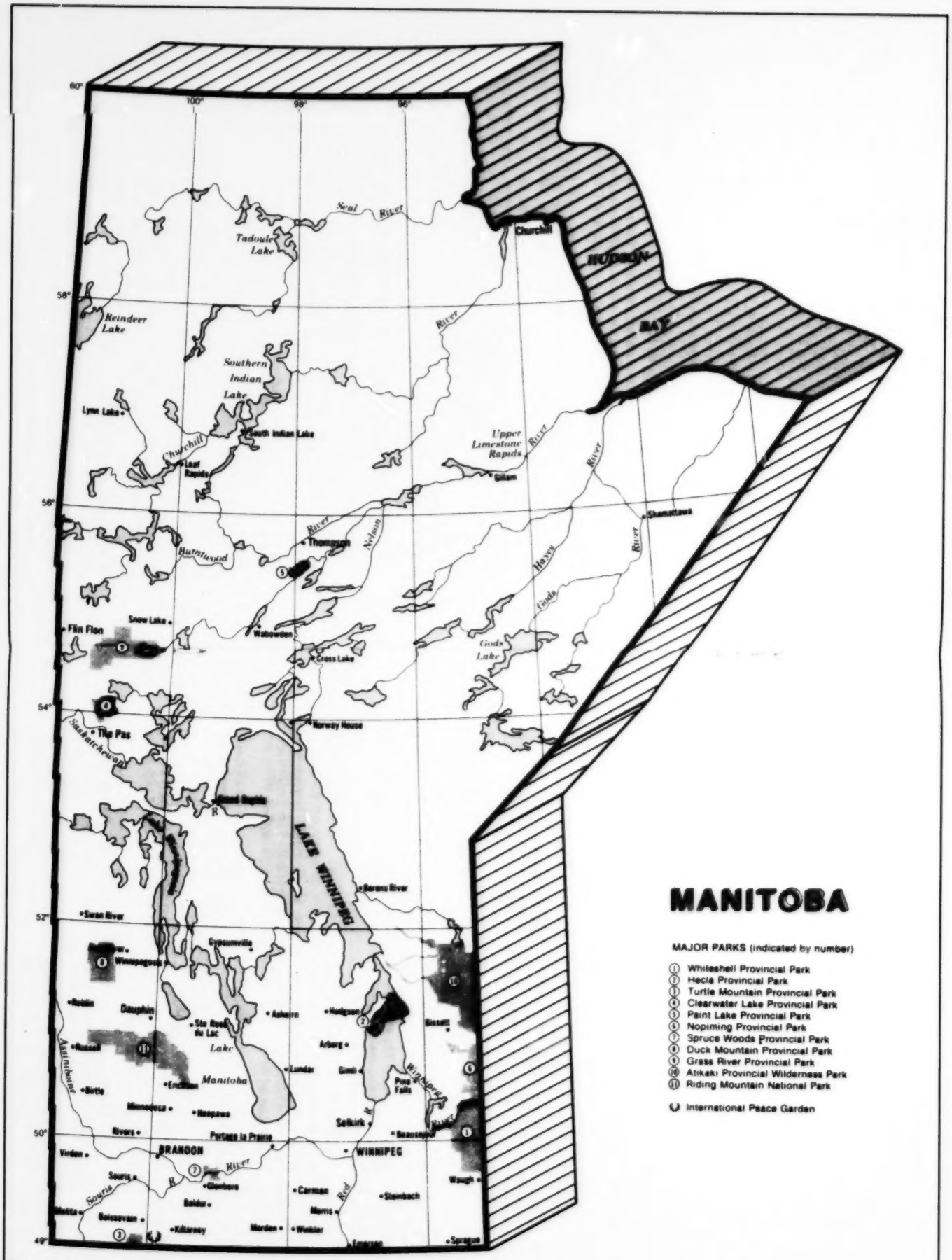
The province operates and maintains 31 airports-aerodromes in northern Manitoba communities; 19 of these airstrips are licensed to airport status. Most of the airports can accommodate up to and including Class 2 air services, and in 1986-87 they handled 63,000 aircraft movements, 160,000 passengers, and 9,600 tonnes of freight.

HIGHWAYS, ROADS, AND FERRIES

Among major east-west highways in Manitoba are the 500 km provincial portion of the Trans-Canada Highway across the province, completed in 1962, and the more northerly Yellowhead Route, which proceeds in a west-northwesterly direction from near Portage la Prairie and offers an alternative route from Manitoba to the west coast. North-south highways include the 800 km route from the United States border at Turtle Mountain to Flin Flon and the highway linking Winnipeg and Thompson, which passes through the Interlake region.

In addition to the regular highway network, Manitoba also operates a 1,250 km system of "winter roads" to transport supplies to isolated northern communities. First developed in the late 1920s to supply northern mining camps, the winter road network has evolved from trails used by sled trains and small tractors to roads usable by large trucks. Winding through bush and muskeg, around large rocks, and across rivers and lakes, the roads are constructed to take advantage of snow and frost cover, and even heavily laden vehicles can safely cross frozen lakes once the roads are built. Winter roads normally are usable in January, February, and March, and occasionally for longer periods in very cold winters. They were constructed privately at first, under provincial land use permits, but since 1971 the province has built and maintained the system.

As of April 1, 1988 there were 7,348 km of provincial trunk highways in Manitoba (of which 663 were four-lane) and 12,297 km of provincial roads. In the trunk highway



Cartography by
Surveys and Mapping Branch
Province of Manitoba. 1985 ©

MAN 208E

system, 370 km were concrete, 4,775 km bituminous surfacing, 1,988 km asphalt treatment, 173 km roadmix, and 43 km gravel.

The provincial roads are a secondary road system, which is maintained by the province. The bulk of these roads are gravel surface. All trunk highways and some provincial roads are limited-access roads. The province maintains some 3,000 bridges on the two systems. The maximum gross vehicle weight for trucks on many of Manitoba's main trunk highways is 56,500 kilograms.

Three motor ferries and four cable ferries, operated by the province, serve communities on Lake Winnipeg and in northern Manitoba. The ferries serve South Indian Lake, York Landing, Split Lake, Cross Lake, Norway House, Princess Harbour, Bloodvein, and Matheson Island. Their capacities range from 90,700 kg for the cable ferries to 22,600 kg for the motor vessels.

MOTOR VEHICLES

The number of passenger cars licensed in Manitoba as of February 29, 1988 was 537,127. There were 858 taxis and liveries, 504 delivery cars, 66,097 farm trucks, 29,320 commercial and public service trucks, 123,595 other trucks, 161 public service buses, 16,798 motorcycles and mopeds, 1,124 commercial and PSV trailers, 7,014 semi-trailers, 90,298 other trailers, 206 licensed tractors, 150 large snowmobiles, and 38,160 registered snowmobiles.

In December 1987 there were 629,298 actively licensed drivers in Manitoba.

RAILWAYS

Railways, which haul a large proportion of freight moving to, from, and within Manitoba, have played a vital role in the province's history and economic development for more than 100 years. The availability of railway service has been a key factor in the development, prosperity, and survival of numerous Manitoba and Prairie communities.

Canadian National has some 4,100 kilometres of main track in Manitoba. A total of 820 kilometres of main track from The Pas to Churchill, formerly known as the Hudson Bay Railway and operated by CN for the federal government, was absorbed into the CN system on January 1, 1958.

CN's Symington Yard in St. Boniface is one of the most modern of its kind in the world. It might be described as a pushbutton freight yard, where as many as 7,000 freight cars can be handled in a day. Radio, telephone, teletype, walkie-talkie, loudspeaker paging, and computers are used to speed and coordinate operations. The yard covers 682 acres, has 225 kilometres of track and some 32 kilometres of roadway.

The railway's Transcona Shops in Winnipeg are CN's western Canada base for all major repairs to locomotives and rolling stock. In relation to investment, number of employees, and production, this shops complex is the largest industrial plant in Manitoba. In 1987 the shops repaired some 2,268 freight cars and 251 diesel units.

CN's materials distribution centre in Transcona stocks and distributes all the materials required in CN operations from Thunder Bay to Vancouver. It stores about 15,000 items and maintains an inventory valued at about $15 million.

CN's national training centre for locomotive engineers, dispatchers, transportation supervisors, and master mechanics is located at Gimli, Manitoba, in the provincially owned Gimli Industrial Park. CN employees from all parts of Canada are assigned to this centre as trainees.

The Canadian Pacific (CP Rail) network in Manitoba comprises 2,500 km of mainline track and 820 km of sidings and yard track. CP Rail has about 3,500 employees in Manitoba.

Winnipeg is the site of a 178-acre marshalling yard, where an average of 2,000 freight cars are processed daily. There are also two satellite yards, comprising 84 acres; an intermodal (container and trailer-on-flatcar) terminal and equipment repair facilities.

CP Rail operates fast freight trains between Winnipeg and principal markets and supply areas from coast to coast. There are daily piggyback connections between Winnipeg and trailer-on-flatcar (piggyback) terminals across Canada for the movement of motor common carrier and private industry highway trailers. The railway also operates intermodal services to industry with its own container fleet.

Import and export traffic moves between CP Rail's Winnipeg container terminal and major coastal ports by rail. Pick-up and delivery within Winnipeg and line-haul services to other Manitoba points are handled by truck. The railway handles both dry and refrigerated container traffic.

Total CP shipments to and from Manitoba in 1987 amounted to about 7.5 million tonnes. Export grain is the dominant commodity (3.8 million tonnes in 1987).

Winnipeg's Weston shops, one of three heavy repair facilities in the CP Rail system, employ about 950 people. The shops repair and rebuild locomotives and railway cars, and supply the entire CP Rail system with freight-car wheel sets and specially hardened components used in track switches. Also located in the Weston area is a diesel shop for light or "running" repairs on a Western Canadian fleet of about 400 locomotives.

VIA Rail Canada operates transcontinental passenger services linking Manitoba with eastern and western Canada. Within Manitoba VIA operates a triweekly Winnipeg-Thompson-Churchill service. Triweekly mixed train services also link The Pas and Lynn Lake, and Wabowden and Churchill. In Winnipeg all VIA trains arrive and depart from Union Station at Main Street and Broadway.

Two other railways operate in Manitoba.

The Greater Winnipeg Water District Railway, part of the city of Winnipeg's waterworks division, operates a 156 km line from St. Boniface to Waugh, on Shoal Lake near the Ontario boundary. The railway, completed in 1914, was built to serve the aqueduct that carries Winnipeg's fresh water supplies to the city from Shoal Lake. Besides transporting freight and maintenance equipment for the aqueduct, the GWWDR carries commercial gravel mined at Ross, about 50 km east of Winnipeg.

Burlington Northern (Manitoba) Ltd., a subsidiary of the American railway Burlington Northern of St. Paul, Minnesota, operates freight services between Winnipeg and the U.S. border, connecting with BN's American lines. Although the railway owns rail yards and facilities in Winnipeg, its trains travel over CN tracks to the border.

PORT OF CHURCHILL

Although Manitoba is a central plains province, it also has a maritime aspect — the port of Churchill. Located at the mouth of the Churchill River on Hudson Bay, Churchill offers a short route to European markets, since it is only 4,725 kilometres from Liverpool, England.

The mouth of the river was found in 1619 by a Danish expedition led by Jens Munk. The expedition was forced to winter at Churchill, and 62 of the 65 members died of scurvy or exposure. Munk and the other two survivors managed to sail their ship back to Europe in 1620.

In 1717 the Hudson's Bay Company built its first fort on the site. A massive stone fort, Prince of Wales's Fort, was begun in 1731, took 40 years to complete, and still stands on a point opposite the modern town of Churchill.

After a number of unsuccessful attempts and considerable delay, construction of a railway to Hudson Bay began in 1910 at The Pas, but was halted in 1918 because of wartime pressures. The original terminus of the Hudson Bay Railway had been fixed at Port Nelson, at the mouth of the Nelson River, but when construction resumed in 1927 this was changed to Churchill, which has a natural harbor. Commercial traffic on the 820 km railway began in 1931, when major port facilities were completed at Churchill.

The first marine shipment out of the port was in 1929, when one ton of bagged grain was loaded on board the Hudson's Bay Company ship "Nascopie" for shipment to Europe. The port now handles about 500,000 tonnes of grain annually, as well as general bulk cargo, fuel oil, and several tonnes of pellets made from refuse grain. On average 21,000 tonnes of cargo are shipped annually by barge to Keewatin territorial communities.

Hudson Bay and Hudson Strait are normally navigable from mid-July to mid-November, but until 1986 the shipping season was generally limited by insurance rates to the period July 20 to October 31. Now insurance is based on a two-tier season: an ice-free period (August 15 to October 15) and case-by-case rates outside these times. Shipping operations are distributed fairly evenly throughout the season.

Churchill also has a modern airport, and the town is the base of a supply service for communities in the Arctic. It is also a major centre for research, testing, health referral, and education.

TELEPHONES AND TELECOMMUNICATIONS

The Manitoba Telephone System, owned by the provincial government and operated by a board of commissioners, operates a wide range of sophisticated telecommunications services throughout the province. Responsibilities include local and long distance telephone service, broadcast and cable television distribution facilities, and data communications. MTS is part of the 10-member Telecom Canada network.

The first telephones in Manitoba were installed in Winnipeg by Horace McDougall, to link his home and business. In 1881 Bell took over the 340-subscriber system he had built. By the next year, telephone systems had been installed in Brandon and Portage la Prairie. A number of other municipalities and private groups set up small, independent systems in Manitoba over the next 25 years.

In 1908 the Bell system was purchased by Manitoba Government Telephones, which became a Crown corporation in 1933 and the Manitoba Telephone System in 1940.

The first automatic exchange in Manitoba was installed in Brandon in 1917. The completion of an automatic dial system in Winnipeg in 1926 made the city the largest in Canada to have this type of service.

As of December 1987 there were about 529,000 main telephones in Manitoba. Winnipeg is served by 330,000 main phones and some 199,000 serve the rest of the province. Calling has increased to more than two billion local calls and more than 97 million long distance calls a year.

Virtually all Manitobans are now served by direct distance dialling. Direct dialling overseas (DDO) and Zero Plus (0 +) are available to more than 87 per cent of MTS customers. DDO allows subscribers to dial their own overseas calls to most countries, and 0 + permits customers to dial their own collect, person-to-person, credit card calls, calls billed to another number, and calls that require time and charges information.

Nearly 89 per cent of Manitoba customers are now served by Automatic Number Identification, a service that automatically records a caller's number when a long distance call is placed.

Extended Area Service (EAS) enables customers in one exchange to have long distance toll-free calling with an adjacent exchange. By the end of 1987, this service was available to more than 134,000 rural customers.

A fibre optic cable system links Winnipeg, Brandon, and a number of Manitoba towns, providing the most advanced communications services available.

MTS employs more than 5,000 Manitobans.

RADIO AND TELEVISION

Radio stations in Manitoba are: Altona-Steinbach-Boissevain, CFAM-CHSM-CJRB (Radio Southern Manitoba); Brandon, CKLQ, CKX and CKX-FM; Cross Lake, CFNC and Norway House, CJNC (Native Communications Inc.); Dauphin, CKDM; Flin Flon, CFAR; Portage la Prairie, CFRY; St. Boniface, CKSB (CBC-French language); Selkirk, CFQX-FM; The Pas, CJAR; Thompson, CHTM; Winkler, CKMW; Winnipeg CIFX and CHIQ-FM, CBW and CBW-FM (CBC), CJOB and CKIS-FM, CKRC and CKWG-FM, CKY and CITI-FM, and CKJS (multilingual).

The CBC has English-language rebroadcasters at Brandon, Churchill, Cranberry Portage, Dauphin-Swan River, Easterville, Fairford, Fisher Branch, Flin Flon, Gillam, Gods Lake Narrows, Grand Rapids, Ilford, Jackhead, Leaf Rapids, Little Grand Rapids, Lynn Lake, Manigotagan, Moose Lake, Nelson House, Oxford House, Pukatawagan, Snow Lake, South Indian Lake, The Pas, Thompson, Waasagomach, and Wabowden, and satellite rebroadcasters in Brochet, Poplar River, and Shamattawa. CBC programs are also carried on a community-owned rebroadcaster in Sundance. CFNC Cross Lake and CJNC Norway House carry, as affiliates, some CBC programs, and CBC broadcasts northern Manitoba programs from Thompson.

French-language CBC (Radio-Canada) rebroadcasters are located in Brandon, Flin Flon, St. Lazare, Ste. Rose du Lac, The Pas, and Thompson.

Manitoba television stations are: Brandon, CKX-TV (with rebroadcast transmitters at Foxwarren, McCreary, and Melita); and CKYB, rebroadcasting programs of CKY Winnipeg; Portage la Prairie, CHMI (Manitoba Television Network); Thompson, CESM-TV (Cable), and CBWTT rebroadcasting programs of CBWT Winnipeg; Winnipeg, CKY-TV (CTV), CBWT (CBC), CBWFT (CBC-French language), and CKND-TV (Global).

CKY Winnipeg has other rebroadcasting stations at Dauphin (CKYD), Fisher Branch, (CKYA), Flin Flon (CKYF), Snow Lake (CKYS), The Pas (CKYP), and Thompson (CKYT). CKND has a rebroadcasting tower near Minnedosa.

CBC rebroadcasters for CBWT are at Churchill, Cross Lake, Dauphin-Swan River, Easterville, Fairford, Fisher Branch, Flin Flon, Gillam, Gods Lake Narrows, Grand Rapids, Ilford-Split Lake, Jackhead, Lac du Bonnet, Leaf Rapids, Little Grand Rapids, Lynn Lake, Mafeking, Manigotagan, Moose Lake, Nelson House, Norway House, Oxford House, Piney, Pukatawagan, Snow Lake, South Indian Lake, The Pas, Thompson, Waasagomach, and Wabowden. Satellite CBC television rebroadcasters are at Brochet, Poplar River, and Shamattawa. CBC television programs are carried on community-owned rebroadcasters in Cormorant, Limestone, Long Spruce, Pikwitonei, Sherridon, and Thicket Portage.

French-language television rebroadcasters for CBWFT Winnipeg are at Brandon, Flin Flon, Oak Lake, Pine Falls, St. Lazare, Ste. Rose du Lac, The Pas, and Thompson.

Sixty-seven cable television systems operate in Manitoba. Most offer at least four Canadian stations, four American stations, a community programming channel, and one or more electronic bulletin boards. Twenty systems on the Intercity Broadband Network provide two American signals from North Dakota and two from Detroit, while 45 rural

and remote systems distribute satellite-received U.S. programs from Detroit, some Canadian services from cities such as Hamilton, Edmonton, and Montreal, and signals from available Manitoba stations. Two small systems in southern Manitoba receive all of their American and Canadian signals off-air.

Of the 360,000 households in Manitoba, 312,000 have access to cable television and 259,000 are subscribers (214,000 in Winnipeg and 45,000 in the rest of the province). About three per cent of households also subscribe to pay or specialty TV services.

NEWSPAPERS

Manitoba has six daily newspapers: the Winnipeg Free Press, Winnipeg Sun, Brandon Sun, Portage la Prairie Graphic, Dauphin Bulletin, and Flin Flon Reminder. The Thompson Citizen publishes three times a week and the Opasquia Times, in The Pas, twice a week.

There are also about 60 weekly newspapers serving farmers, rural and northern Manitoba, and the suburbs of Winnipeg, which is also a leading centre for the ethnic press. A number of trade, business, and specialized journals and newspapers are also published in Manitoba.

GOVERNMENT

HISTORY

The territory that is now called Manitoba was part of the vast Rupert's Land possessions that were under the jurisdiction of the Hudson's Bay Company until 1870. When it became clear that Canada was to purchase and annex Rupert's Land, concern arose among the inhabitants of Red River about their status and land rights, and these feelings were intensified when Canadian government surveyors arrived in Red River in the summer of 1869 to begin preparatory work for a land survey of the Northwest. A provisional government was formed under Louis Riel, which negotiated the entry of the settlement into Confederation as the province of Manitoba. Manitoba came into being July 15, 1870, upon proclamation of the Manitoba Act, and was the first province to join the original four.

For the next few months the Lieutenant-Governor, Adams Archibald, carried on government by proclamation. The first election was held December 28, 1870, after Archibald created the electoral machinery.

The Manitoba Act provided for a bicameral legislature — that is, two houses similar to the House of Commons and the Senate nationally. The two Manitoba houses were a legislative council of seven members appointed for life and an elective assembly of 24. The legislative council was abolished after six years and Manitoba has since then had only an elected legislature.

Archibald governed the province for about two years with the help of an Executive Council drawn from the elected assembly. During this period there was no Premier as we understand it today and the meetings of the Council, now also called the cabinet, were presided over by the Lieutenant-Governor. Archibald's successor, Alexander Morris, continued to preside over, or sit in on, the cabinet meetings until 1876.

There is considerable question as to who was the first Premier of Manitoba and the first cabinet selected by a Premier. Some historians assert that Alfred Boyd, who was chosen to be a member of the Executive Council by Archibald, was recognized as a first minister of the council. Other historians say Marc A. Girard, named as Premier by Morris in 1874, was the first real Premier because he was able to choose his own cabinet.

Provincial political parties as we know them today did not exist in Manitoba before the turn of the century. During the first few years after 1870 the policies adopted by the legislature were those of the Lieutenant-Governors sent from Ottawa. Subsequently, members of the legislature tended to be identified with one of the major politicians whose policies they supported, and later as supporters of the national Liberal and Conservative parties. The first Manitoba government to be elected while bearing a real provincial party label was the Conservatives in 1899. Their platform pledged economy and efficiency in government operations and an end to the public sale of liquor in Manitoba.

The Conservatives held power until 1915, when they were forced to resign over a scandal involving the construction of the Legislative Building, for which substantial overpayments had been made. They were replaced by the Liberals under T.C. Norris, who remained in office until 1922.

The Norris government retained power in the 1920 election, but widespread distaste for the party system in Manitoba in the immediate postwar period helped to reduce the Liberals to a minority position, with only 21 of the 55 seats. In the legislature there were also seven Conservatives, 12 United Farmers of Manitoba, 11 Labor members, and four Independents. The United Farmers refused to form the official Opposition, and the Labor and Independent members could not be counted on to vote in any particular pattern.

Feelings against the party system were again reflected in the 1922 election, which made the United Farmers the largest group with 28 of the 55 members. However, each United Farmer member believed himself responsible only to his own constituents; hence the United Farmers lacked a party organization and had no leader. They therefore called on John Bracken, then president of the Manitoba Agricultural College, to lead them in the legislature and become Premier.

The United Farmers decided in 1928 to get out of politics and Mr. Bracken looked to the Liberals for support. This move was formalized in 1932 and the Liberal-Progressives ran as a coalition in the 1932 election, taking 38 seats in the legislature.

In the 1936 election the Liberal-Progressives won only 23 seats and were rebuffed by the Conservatives in their attempt to expand the coalition. However, Social Credit, which had been formed the previous year, had won five seats and gave the government their support. The CCF won seven seats, Conservatives 16, Independents three and Communists one.

In 1940 the Second World War caused the provincial parties to agree to a coalition, which comprised the Liberal-Progressives, Conservatives, CCF, and Social Credit. All parties agreed not to take part in any federal political action for the duration of the war.

Stuart S. Garson replaced John Bracken as Premier in 1943 when Mr. Bracken resigned to become leader of the federal Progressive Conservative Party.

In 1945 the CCF decided to withdraw from the coalition, which won a majority in the 1945 elections. Douglas L. Campbell succeeded Mr. Garson in 1948 as coalition leader and was Premier for nearly 10 years.

The Progressive Conservatives left the coalition in 1950, convinced by Duff Roblin that they should break away and run for power on the strength of their own policies. Mr. Roblin became party leader in 1954, and in the 1958 election his party won 26 seats, coalition candidates 19 and CCF 11. The new Conservative government won 36 seats and a clear majority in 1959, and for the first time in more than 25 years Manitoba had returned to the party system.

The Conservatives won elections again in 1962 and, with a decreased majority, in 1966. In 1967 Walter Weir became Conservative leader and Premier when Mr. Roblin resigned to enter federal politics.

In June 1969, Edward Schreyer left the House of Commons, where he had been a New Democratic Party member, to lead the party to power in a general election, winning 28 of the 57 seats. Through support of Independent members and victories in by-elections, the government was able to maintain a working majority for the next four years. The New Democrats were re-elected in 1973 with 31 seats.

In the general election of October 1977, a Progressive Conservative government was elected under the leadership of Sterling R. Lyon, who had served in cabinets in the Roblin and Weir governments.

Edward Schreyer became Canada's 22nd Governor-General in January 1979.

The NDP was returned to power in the general election of November 1981. Led by Howard Pawley, attorney-general and municipal affairs minister in the Schreyer government, the NDP won 34 seats and the Progressive Conservatives 23. The Liberals failed to win a seat for the first time in their history. The Pawley government was re-elected in March 1986, winning 30 seats to the Conservatives' 26 and the Liberals' one.

Gary Filmon became Premier of a minority Progressive Conservative government in May 1988, after a general election forced by the defeat of the previous government in the Legislature. The Conservatives won 25 seats, the Liberals 20, and the New Democrats 12.

MANITOBA GOVERNMENT TODAY

Manitoba's present government is headed by Premier Gary Filmon, whose administration took office May 9, 1988. It is the province's 20th administration and Mr. Filmon is the 19th premier.

Laws are passed by a single-chamber Legislative Assembly of 57 members. The present legislature is the 34th since Manitoba became a province.

The Lieutenant-Governor is the Queen's personal representative in Manitoba. The present Lieutenant-Governor, His Honour, Hon. George Johnson, assumed office December 12, 1986.

Manitoba has 14 seats in the federal House of Commons and six seats in the Senate.

At the local level municipalities of various kinds are responsible for government services. The province has five incorporated cities, 35 incorporated towns, 39 incorporated villages, and 105 rural municipalities, which vary widely in size. The rural municipalities range in size from four townships (a township is six miles square) to 22 townships.

The business of the municipalities is directed by locally elected councils, subject to some provincial control.

Since January 1945, local government districts have been established in settled areas of Manitoba that are not incorporated municipalities. The 17 LGDs perform the same general functions as municipalities. They are administered by administrators, who act on the advice of elected councils but are subject to the final authority of the Minister of Municipal Affairs.

In northern Manitoba the Department of Northern Affairs has jurisdiction in those areas not incorporated or organized as local government districts. Many of the larger non-organized northern communities do have a form of elective government, known as community councils, but because of a very limited tax base most of their funds come from the provincial government.

COURTS

The Manitoba Court of Appeal, which sits in Winnipeg, is the highest court in the province. It has a Chief Justice and six other judges, appointed by the federal government. The court has appellate jurisdiction in civil and criminal cases.

The Court of Queen's Bench, Manitoba's highest trial court, has a chief justice, an associate chief justice, and a number of puisne judges, all federally appointed. The court has jurisdiction in civil matters with no set monetary limit and most indictable criminal offences. It also hears appeals on summary matters referred from Provincial Court and appeals from quasi-judicial boards. The criminal division sits permanently in Winnipeg and five other towns.

All family and child protection cases heard in Winnipeg, St. Boniface, and Selkirk come under the jurisdiction of the family division of Court of Queen's Bench. In some other parts of eastern Manitoba, Queen's Bench and provincial courts have concurrent jurisdiction in these cases. Divorce and family maintenance cases in the rest of the province are under Queen's Bench jurisdiction, but child protection is the responsibility of Provincial Court.

Queen's Bench judges act in surrogate matters, such as the probating of wills, the granting of letters of administration of estates, guardianship of children, and estates of the mentally ill. Within Queen's Bench is Small Claims Court, where claims of up to $3,000 are adjudicated, with appeals to a judge.

Provincial Court has jurisdiction in summary conviction cases under the Criminal Code and under provincial laws, and indictable offences elected to be tried by a provincial judge. It sits in 20 permanent and 49 circuit locations. Besides other family matters in many parts of Manitoba, the family division of Provincial Court acts as Youth Court in the province to hear cases under the Young Offenders Act concerning persons under 18 years of age.

TIME AND HOLIDAYS

All Manitoba is located in the Central time zone. Daylight Saving Time is in effect throughout the province from the first weekend in April to the last weekend in October. During the rest of the year the province is on Central Standard Time.

There are seven statutory holidays recognized in Manitoba — New Year's Day, Good Friday, Victoria Day, Canada Day, Labour Day, Thanksgiving Day, and Christmas Day. Individual employers may grant additional days, and collective agreements may include additional days off.

Most businesses in Manitoba are closed on Sunday. As some workers must be on the job on Sunday (for example, hospital employees, transportation workers, police, fire workers, hotel employees, and restaurant employees), employment standards legislation guarantees them weekly days of rest.

Provincial and municipal parks may be open on Sunday. In municipalities where it is permitted by bylaw, sporting events, movie theatres, theatrical performances, concerts, lectures, and museums may operate. Restaurants licensed by the Manitoba Liquor Control Commission may sell liquor with meals on Sunday.

EDUCATION

Public school education in Manitoba is administered through 47 school divisions and 12 school districts. Five of the school districts are financed mainly by sources other than provincial grants and local taxation, such as the federal government and private corporations.

Enrolment in the public schools in the 1987-88 school year was about 199,500 and about 13,400 teachers were employed in the public school system.

The expenditures of the school divisions are met from provincial grants and local levies. The province's Government Support to Education program provides a basic level of support. Any costs above those supported by grants must be raised by special levy and miscellaneous revenue. Major capital expenditures, such as additions to schools, may be fully covered under the Government Support to Education program, but such expenditures must be approved by the Public Schools Finance Board.

Elementary and secondary education in Manitoba is offered through 12 grades, and the language of instruction can be either English or French. The first nine years are devoted to a general education for all students. The three years of senior high school provide a varied curriculum, from which students may choose programs that meet their individual needs, interests, and abilities. All program patterns are designed to provide a sound general education at the secondary level and to equip students with the skills and knowledge needed for further education or for employment.

Besides the traditional academically oriented programs offered by all high schools, vocational-industrial programs are offered in 34 schools and almost every high school offers business education programs. Vocational programs are available on a regional basis throughout the province.

South Winnipeg Technical Centre, which opened in September 1985, offers training in many technical fields to both high school students and adults. The centre is unique in its system of individualized instruction, which allows students to progress through courses at their own paces and abilities.

COMMUNITY COLLEGES

Three community colleges in Manitoba — Assiniboine in Brandon, Keewatin in The Pas, and Red River in Winnipeg — offer a wide variety of educational and vocational programs to adults throughout the province. Courses of study are offered on a full-time and part-time basis at the colleges' main campuses, several regional centres, and in more than 120 Manitoba communities.

The community colleges offer day programs in adult basic education, applied arts, business and administrative studies, health and personal services, and industrial and technology. The colleges also train apprentices in the designated trades and operate specialized training programs for business, industry, and non-profit and community organizations. In addition, an extensive program of continuing education courses is offered throughout the province to persons wishing to study evenings and weekends.

During 1986-87 nearly 34,000 students were enrolled in community college courses. The total includes nearly 20,000 Manitobans who took certificate, trade improvement, and avocational courses evenings and weekends at the three institutions.

UNIVERSITY OF MANITOBA

The University of Manitoba is situated on a 685-acre campus in south Winnipeg and has about 15,700 full-time, 7,700 part-time, and 7,100 summer students. There are four colleges (St. John's, St. Paul's, St. Andrew's and University College) on this main campus. St. Boniface College, situated in St. Boniface, is also affiliated with the university and offers instruction in the French language. Health sciences faculties are located near downtown Winnipeg. There are faculties of Administrative Studies, Agriculture, Architecture, Arts, Dentistry, Education, Engineering, Graduate Studies, Human Ecology, Law, Medicine, Pharmacy, Physical Education, and Science, as well as schools of Art, Dental Hygiene, Medical Rehabilitation, Music, Nursing, and Social Work, the Natural Resources Institute, and Continuing Education division.

BRANDON UNIVERSITY

Brandon University began as Prairie College in Rapid City, Manitoba but relocated to Brandon in 1890. It received its university charter in 1967. The university offers three- and four-year undergraduate degrees in Arts, Science, Education, and Music and master's degrees in Music. It has about 1,200 full-time and 1,600 part-time students.

UNIVERSITY OF WINNIPEG

The University of Winnipeg, with about 2,960 full-time and 4,550 part-time students, was founded in 1967, but its history as United, Wesley, and Manitoba Colleges goes back more than 100 years. Located near downtown Winnipeg on Portage Avenue, its campus is one of the city's landmarks. The university offers three and four-year undergraduate degrees in arts, science, and education, studies in its collegiate and theology divisions, and a limited number of graduate programs in association with the University of Manitoba.

TEACHER EDUCATION

Teacher education programs are available at the University of Manitoba, Brandon University, University of Winnipeg, and St. Boniface College. A vocational-industrial teacher education program is offered at Red River Community College.

Generally, a Professional teaching certificate is offered to four-year graduates of the B.Ed. degree program. In addition, special certificates in vocational-industrial education, heritage languages, music, and physical education are issued. Clinician certificates are issued to school psychologists, reading specialists, speech and hearing therapists, school-based social workers, physiotherapists, and occupational therapists. Other certificates available are Level 1 school administrator, Level 2 principal, special education, and special education co-ordinator.

HEALTH AND SOCIAL SERVICES

Manitobans receive prepaid hospital and physician's care through the Manitoba Health Services Commission. There are no premiums for these services in the province. Manitoba also has a pharmaceutical reimbursement program that provides for payment of 80 per cent of the cost of all prescription drugs in excess of $125 ($75 for senior citizens) incurred by an individual or family in each calendar year. Details of these programs may be obtained from the Manitoba Health Services Commission, 599 Empress Street, Winnipeg R3C 0T3.

Manitoba Health operates comprehensive services in public and mental health. The department's public health programs include dental services (and children's preventive dental care), maternal and child health, hearing screening and diagnosis, public health nursing, communicable disease control, nutrition and home economics, home care and environmental health. The department is also responsible for large health care institutions, such as hospitals, personal care homes, and mental health centres — except for the Manitoba Developmental Centre (for the mentally handicapped), which comes under Community Services. The Alcoholism Foundation of Manitoba, which reports to the Minister of Health, operates residential and outpatient alcoholism and drug abuse treatment programs.

Manitoba Community Services operates mental retardation services, rehabilitation services, and child and family services. The department licenses, inspects and sets care standards for group homes, other residential care homes and day care centres. It financially supports a wide range of non-government social service agencies and care providers (such as day care centres).

Manitoba Employment Services and Economic Security operates provincial welfare programs and financial support services for pensioners and low-income working families with children. The department also operates employment services for youth and students, a wide variety of training and employment preparation programs, and settlement assistance programs for immigrants.

FINANCE

For the fiscal year ending March 31, 1988, the Province of Manitoba estimated revenues of $3,772,608,800 and expenditures of $4,187,860,300, for a projected deficit of $415,251,500.

The largest single revenue source is individual and corporation income tax, estimated at $1,023.5 million for 1987-88. Other taxes, such as those on gasoline and motor fuels, parimutuels, retail sales, and resources, were estimated at $1,231.4 million. Fees and other revenues will generate $199 million and revenues from the Manitoba Liquor Control Commission were forecast at $154 million. Unconditional transfer payments and shared-cost receipts from the federal government, covering education, health and community services, economic development, and other items, were estimated at $1,165.1 million.

More than half the Manitoba government's expenditures go toward education, health, and social services.

RESOURCES

FISHERIES

Manitoba's interior location is belied by the importance of its fisheries resources, which stem from an abundance of water in the form of lakes and streams that cover 16 per cent of the area of the province. Manitoba's fisheries were worth about $24.9 million in 1986-87.

The commercial fisheries exploit an estimated 57,000 km^2 of water. The largest water bodies — Lakes Winnipeg, Winnipegosis, and Manitoba — together produced 69 per cent of the 1986-87 commercial catch of 12.5 million kilograms. Most of the commercial catch is processed by the Freshwater Fish Marketing Corporation and exported to the United States. Whitefish, pike, walleye, and sauger predominate among the 14 species or groups of species that enter into the commercial catch.

Walleye, pike, and several kinds of trout are the principal sport fish. In 1986-87, 192,819 angling licences were sold in Manitoba.

Fisheries administration is under the control of Manitoba Natural Resources. Conservation officers of the department enforce regulations. Biologists conduct studies to monitor, and extend knowledge of, the fisheries resources.

FORESTRY

Almost 51 per cent (334,440 km^2) of Manitoba's total area of 649,947 km^2 is officially classified as forest land, more than three times the amount of land devoted to agriculture. Fourteen areas, containing 16,500 km^2, are set aside as publicly owned provincial forests, specifically for the production of forest products. The greater part of the remaining forest land is also owned by the province.

The most common tree species, in order of present volume, are black spruce, trembling aspen, jack pine, white spruce, balsam poplar, and white birch. Balsam fir, tamarack larch, eastern cedar, bur oak, white elm, green ash, basswood, cottonwood, Manitoba maple, red pine, and white pine are also found, primarily in southern Manitoba.

The forest industry employed approximately 11,500 people directly and indirectly in 1986. The total value of production of wood-using industries, including logging and primary and secondary manufacturing, was about $500 million.

A total of 1.7 million cubic metres of wood were harvested from Crown land in 1986-87, with pulpwood and sawlogs providing more than 90 per cent of the end use. Wood pulp and paper is by far the most important of the primary wood-using industries and sawmilling is second. Secondary industries in Manitoba manufacture a wide range of wood and paper products, from doors and caskets to asphalt roofing and bags. Most of these products are sold within the province. Pulpwood, kraft paper, newsprint, and lumber are important export products, sent to other provinces and the United States.

Through sophisticated communications and mechanical equipment and highly trained crews, Manitoba protects its forests and communities against forest fires, and can move quickly to attack fires when they break out. Fire-risk areas of the province are divided into seven patrol blocks, totalling 233,098 km^2. Aircraft with fire detection observers on board fly designated patrols in these regions throughout the fire season, as determined by the fire weather index.

In 1986 Manitoba experienced 217 forest fires, of which 73 were caused by lightning and 114 by people. A total of 25,556 acres were burned.

The province also protects its forests from insects and disease, through such methods as pruning, removal of dead branches and trees, creation of buffer zones, and insect spraying. With 43 municipalities and the city of Winnipeg, Manitoba operates a program under which both levels of government share the costs of action against Dutch Elm Disease.

The province operates two provincial nurseries, at Hadashville east of Winnipeg and near The Pas, as part of its programs to improve and increase seedling production and reforestation of land. In 1987 about 14,800 acres were reforested.

LANDS

There are approximately 135.5 million acres of land in Manitoba, of which some 34.1 million acres are privately owned. The remaining 101.4 million acres are public (Crown) land, of which nearly 2 million acres are in national parks, Indian reserves, etc., and 99.4 million acres under the jurisdiction of the province.

Most provincial Crown lands are unsurveyed and unsuitable for cultivation. Manitoba Agriculture administers agricultural Crown land leases, but nearly all other surface leases and all Crown land sales are administered by the lands branch of Manitoba Natural Resources. Underground mineral and petroleum leases are administered by the mines and petroleum branches of Manitoba Energy and Mines.

Crown lands that lie outside provincial parks, forest reserves or other designated areas are available for sale for agricultural, commercial, recreational, and residential uses, provided that such uses conform to approved sale policy then in effect.

Commercial, industrial, recreational, residential, and miscellaneous leases, and permits — as well as easements and licences — are available for a wide variety of Crown land uses. The use of Crown land for intensive cottage development (outside designated parks) is administered by the lands branch of Manitoba Natural Resources. The branch also operates a comprehensive wild rice administrative-management program: a licensing system on Crown-owned lakes and assistance to producers through extension services and research.

Agricultural contracts administered by Manitoba Agriculture include forage leases, cash rental leases for cultivation, hay permits, and casual-use agricultural permits. They may be for short or long term, depending on the particular lease and the location of the land (approximately 2 million acres). The department also operates a land-clearing and breaking program on lands under long-term leasehold.

Private lands may be available from municipalities, private landowners, or mortgage companies. For further information on Crown lands, write the lands branch, Manitoba Natural Resources, 1495 St. James Street, Winnipeg, Manitoba R3H 0W9.

MINERALS

Manitoba's 1987 mineral production in 1987 was valued at an estimated $1,016.5 million, an increase of 33.1 per cent or $252.6 million over 1986. This was the first time that value of production had exceeded $1 billion. Metals accounted for 74.8 per cent of the total value of production, followed by industrial minerals (14.2 per cent) and petroleum (11 per cent).

In 1987, in response to stronger demand and higher product prices, nickel production at Inco's Thompson operations increased by one-third, to an estimated 56.3 million kilograms, from 41.8 million in 1986.

Copper production in 1987 was 71.8 million kg and zinc production 66.2 million kg, compared with 65.4 and 61.5 million kg respectively, in 1986. Besides being associated with nickel ores, copper is found with zinc at the mining operations of Hudson Bay Mining and Smelting Co. in the Flin Flon, Snow Lake, and Leaf Rapids areas.

Copper and zinc concentrates produced from Flin Flon and Snow Lake area mines are processed at Hudson Bay's copper smelter and zinc refinery at Flin Flon to produce copper anodes, refined zinc, and cadmium. The copper anodes, which contain small amounts of gold, silver, selenium, and tellurium, are shipped to Montreal for refining. Lead concentrates produced at Hudson Bay's Snow Lake mill are shipped to Trail, B.C. for further processing. Copper and zinc concentrates from the Ruttan mine are also processed at Hudson Bay's Flin Flon metallurgical complex.

By the end of 1987, three Manitoba gold mines were producing gold bricks. This is the highest number to operate at one time since the 1940s. The mines are the MacLellan mine near Lynn Lake, the Tartan Lake mine near Flin Flon, and the Puffy Lake mine near Sherridon.

During 1987 tantalum production at Tantalum Mining Corporation's Bernic Lake mine, northeast of Winnipeg, remained suspended because of continuing poor market conditions. The Bernic Lake pegmatite also contains the world's largest reserves of cesium ore, as well as a variety of other rare minerals of potential market value. During 1987, Tanco continued producing spodumene concentrates. This is a highly refined lithium oxide product, which can be used directly as a feedstock for the manufacture of such items as pyroceramic sanitary ware and cookware, and specialty glassware.

World oil prices reversed their dramatic decline of 1986 and improved during 1987. By the end of the year the average price was 20 per cent higher than in 1986. Manitoba production in 1987 declined to 780,000 cubic metres from 823,000 cubic metres in 1986. However, because of better prices, value of production in 1987 was about $111.5 million, an increase of 17 per cent over 1986. During 1987, 107 wells were drilled, compared with 135 in 1986 and 268 in 1985. In 1987, 90 wells were completed as potential oil wells, resulting in a 84 per cent success rate. All production is from oil fields in southwestern Manitoba, particularly in the Virden, Pierson, Daly, and Waskada areas. The latter two areas continued to

be the centre of exploration and development. As of December 31, 1987, total remaining established crude oil reserves are estimated to be 8.1 million cubic metres.

Industrial minerals quarried in Manitoba include a wide variety of raw materials for the construction industry and for specialized uses. Portland cement is produced at Fort Whyte, near Winnipeg, using local clay, and silica sand and limestone quarried near Steep Rock and clinker from Alberta. Limestone is also quarried north of Mafeking and lime is produced from a rotary kiln at Faulkner. Dolomitic limestone is quarried at Garson for Tyndall building stone. Dolomite, for crushed rock, is quarried in the Interlake and elsewhere and granite (for monumental and building stone) near Pinawa and Whitemouth. High-quality silica sand quarried on Black Island in Lake Winnipeg is used principally in glass making, as foundry sand, for sand blasting, and as a filtering medium. Sand and gravel for the construction industry are extracted from numerous pits, mainly in the populated regions of Manitoba. Gypsum is produced at Gypsumville and near Amaranth.

Stoneware clay from the Ste. Rose du Lac area and shale from the Pembina Mountain area are used with sand in the manufacture of face-bricks. Non-swelling bentonite, used mainly in the clarification of petroleum and vegetable oils, is quarried near Morden, the sole production in Canada. In 1987 peat moss was harvested mainly for horticultural purposes from four bogs east of Winnipeg and another near Giroux in the southeast.

During 1987 government geoscientific activities continued to be funded, co-ordinated and facilitated under the five-year Canada-Manitoba mineral development agreement (1984-89). As in previous years, emphasis was on assisting the search for ore deposits in the Lynn Lake, Leaf Rapids, Flin Flon, and Snow Lake regions and on raising the level of exploration activities elsewhere in Manitoba. Precambrian geological mapping programs and mineral deposit studies were also conducted in the Rice Lake, Bissett, Thompson, Cross Lake, Manigotagan, Lily Lake, Gods Lake, and Island Lake areas. Stratigraphic mapping and drill core hole programs were continued in the Moose Lake, Cormorant Lake, Clearwater Lake, and Dawson Bay areas. Industrial mineral resource programs were carried out in several regions. These included evaluation of a wide range of potentially exploitable commodities: dimension stone, soapstone, peat moss, pegmatite minerals, clay, shale, silica sand, bentonite, kaolin, glauconite, gypsum, cement rock, and abrasive and refractory materials such as garnet, staurolite, kyanite, and sillimanite. Geological mapping and investigations of aggregate resources were carried out in the rural municipalities of Louise, Winchester, and Morton, and in the Cross Lake area.

WILDLIFE

Manitoba is inhabited by more than 350 different species of wildlife, including several species of game birds and animals. Upland game birds such as sharp-tailed grouse, ruffed grouse, spruce grouse, and ptarmigan are common in forested areas, while introduced birds such as gray (Hungarian) partridge and wild turkeys inhabit the agricultural prairie. Migratory game birds include the abundant Canada, snow, and blue geese, and numerous species of ducks, sandhill cranes, coots, snipe, and rails. Big game animals vary from white-tailed deer and elk in the south to the more northerly moose, caribou, black bear, and timber wolf.

Wildlife conservationists protect and manage game birds, big game, furbearers, small game, reptiles, amphibians, and other protected species through maintenance and enhancement of their habitat (public land refuges and wildlife management areas) and private-land habitat maintenance incentives. Hunting and trapping are regulated and controlled by way of seasons and bag limits, thus ensuring limited harvest which is another method of protection. Agriculture is safeguarded through programs aimed at minimizing game-bird and big-game damage to crops and stored products.

The provincial wildlife branch provides legal protection for 26 species of mammals, 45 species of birds, six reptiles, and four amphibians. Migratory birds are protected under the Migratory Birds Convention Act, administered in co-operation with the Canadian Wildlife Service. Manitoba's sea-dwelling beluga whales and four species of seals are protected by the federal Fisheries Act.

Manitoba has 59 wildlife management areas, covering 29,540 km^2, which through habitat protection support a great diversity and abundance of wildlife. The largest, Cape Churchill Wildlife Management Area (18,615 km^2), has large numbers of polar bear, woodland caribou, Canada geese, and snow geese. By contrast, some smaller areas in southern Manitoba, containing native prairie plants, grouse, and small mammals, may be only 160 acres in size. Public use compatible with wildlife maintenance is encouraged.

In 1987-88 provincial wildlife programs accommodated 66,000 hunters (60,000 resident and 6,000 visitors) and 800 guides. In addition, 250,000 other Manitobans participated in some form of wildlife-oriented activity during the year.

Manitoba's 15,000 trappers harvested $8.1 million worth of wild fur in 1987. This included $1 million worth of fisher pelts; coyote, $942,000; muskrat, $1.1 million; beaver, $1.8 million; marten, $1.4 million; and mink, $827,000.

TOURISM, RECREATION, AND CULTURE

Manitoba offers the resident and the traveller year-round attractions and activities, both outdoor and indoor, in all parts of the province.

Vacationers can obtain accommodations and services at all price ranges, from government-operated or private campgrounds to first-class hotels. For persons driving on Manitoba highways, the parks branch and Highways department have established dozens of roadside areas where picnic tables are available for wayside stops. Larger parks and golf courses are found throughout the province, and there is excellent angling, canoeing, camping, and hunting. Fly-in fishing camps are located in eastern and northern Manitoba.

Among the cultural and tourist attractions in the Winnipeg area are the Museum of Man and Nature, the Winnipeg Art Gallery, the Planetarium, the Legislative Building, the Winnipeg Mint, St. Boniface Museum, Lower Fort Garry, Assiniboine Park and Zoo, and Kildonan Park. A vintage steam train carries passengers in summer, and from mid-May to mid-October five large passenger ships cruise the Red and Assiniboine Rivers. In season, it is possible to attend performances of the Royal Winnipeg Ballet, Manitoba Opera Association, Rainbow Stage, Winnipeg Symphony Orchestra, Manitoba Theatre Centre, Prairie Theatre Exchange, and Contemporary Dancers Canada and games of the Winnipeg Jets (National Hockey League) and Winnipeg Blue Bombers (Canadian Football League).

There are about 130 museums in large and small communities throughout the province, 30 in Winnipeg alone. Pioneer heritage, history (cultural, ethnic, community, natural history), science, sports, agriculture and farm implements, shipping, clothing, mining, and automobiles are among the many subjects around which museums have been developed. Many museums are open year-round, but others are seasonal in operation.

Manitoba has more than 50 festivals that reflect the richness of its natural resources and the various cultural backgrounds of the people. All are fun-filled events with contests, special foods, and celebrations. Outstanding among them in summer are the Provincial Exhibition of Manitoba in Brandon, Folklorama in Winnipeg, the Icelandic Festival in Gimli, the Winnipeg Folk Festival, Canada's National Ukrainian Festival in Dauphin, Opasquia Indian Days in The Pas, Pioneer Days in Steinbach, York Boat Days in Norway House,

Thompson Nickel Days in Thompson, the Manitoba Stampede in Morris, the Trout Festival in Flon Flon, the Fête Franco-Manitobaine in La Broquerie, the Threshermen's Reunion in Austin, and the Corn and Apple Festival in Morden. Winter brings the Festival du Voyageur in St. Boniface, the Trappers' Festival in The Pas, the Canadian Power Toboggan Championships in Beausejour, and the Royal Manitoba Winter Fair in Brandon.

The Department of Business Development and Tourism has complete information on tourist attractions in Manitoba. Persons seeking information should indicate the areas of the province and the features in which they are interested or would like to see. Pamphlets, maps, and other information may be obtained from Travel Manitoba, Dept. 8014, Winnipeg, R3C 3H8.

INTERNATIONAL PEACE GARDEN

The International Peace Garden is located 25 kilometres south of Boissevain in the Turtle Mountains and straddles the Manitoba-North Dakota boundary. It was created as a result of efforts by citizens of both Canada and the United States and is operated by a committee of Canadians and Americans.

The park includes 1,451 acres of Manitoba and 888 in neighbouring North Dakota, developed with small lakes, ornamental spillways, terraced gardens, picnic sites, an arboretum, pavilion with dining facilities, hiking trails, and extensive gardens. There are also facilities for athletic training and an international music camp.

The dedication for the garden reads: "To God in His Glory we two nations dedicate this Garden and pledge ourselves that as long as men shall live we will not take up arms against one another." When the garden was opened in 1932 there were 50,000 people in attendance from both countries.

NATIONAL PARKS AND HISTORIC SITES

Riding Mountain National Park is one of the most popular national parks in Canada. Located 270 km northwest of Winnipeg and 100 km north of Brandon, the park contains 2,978 km^2 of rolling woodland, lakes and streams. Most activities centre on Clear Lake, the largest lake in the park, and the modern resort community of Wasagaming, with a scenic 18-hole golf course, tennis, swimming, boating facilities, modern lodges, and fully equipped campgrounds among its attractions. An interpretation centre offers displays and programs on the area's natural and human history. The park has a well-developed system of nature and hiking trails, totalling about 425 km, for the hiker and wilderness camper, and many trails can be explored on horseback. Wildlife is plentiful in the park and easily observed. Large numbers of elk and moose, as well as their chief predator, the wolf, roam throughout this vast nature preserve. The park maintains a display herd of bison, pastured at Lake Audy. A few of the 75 lakes have excellent fishing for pickerel, pike, and stocked trout, and campgrounds are conveniently located to serve as bases of operations. For winter enthusiasts there are 28 cross-country skiing and snowshoeing trails. There are also ice-fishing on Clear Lake, downhill skiing at Mount Agassiz on the eastern slopes of Riding Mountain near McCreary, and limited snowmobiling in the Wasagaming area.

Two National Historic Parks and three National Historic Sites in the province preserve and illustrate important aspects of Manitoba's history and way of life before 1870. The best known is Lower Fort Garry, 32 km northeast of Winnipeg on the Red River. The massive stone fort, which never saw a battle, was built in the 1830s to give the Hudson's Bay Company a headquarters safe from Red River floods. It is the only original stone fort in North America still intact. Used by the company until 1911, Lower Fort Garry

was an important part of life in Red River before the formation of Manitoba and has been restored in recent years to depict fur trade and Red River Settlement conditions of the mid-19th century.

Riel House, in the St. Vital area of Winnipeg, was the home of the Riel family (though not of Louis Riel) from 1881 to 1968. It has been restored and furnished as a mid-1880s residence, and displays on the site portray the land tenure system prevailing in Red River Settlement days.

St. Andrew's Rectory, on the Red River northeast of Winnipeg, commemorates the role of the early Anglican missionaries in Red River. The building's exterior has been restored to 1850s appearance, and inside are exhibits that trace the history and influence of the Church Missionary Society in the community.

York Factory and Prince of Wales's Fort, both on Hudson Bay, recall the days of the fur trade and of French-British rivalry for possession of the western interior of Canada. York Factory, at the mouth of the Hayes River, was the site of several forts, the first of which was built in 1682. For most of the 19th century, York Factory was the principal supply and administration base for the Hudson's Bay Company and the transshipment point for furs from the interior and goods from overseas. Its role in the fur trade declined after 1875, although the post remained in operation until 1957. It is accessible by float and wheeled planes, canoe (down the Hayes) or jet boat (down the Nelson River from Gillam). Prince of Wales's Fort, opposite Churchill at the mouth of the Churchill River, was begun in 1731 as the second Hudson's Bay Company attempt to build a fort on the site. Not completed until 1771, it was destroyed by the French in 1782 and lay virtually abandoned until the federal government began partial restoration in 1960. Prince of Wales's Fort can be visited by boat from Churchill.

RED RIVER CORRIDOR PARKS

A system of riverfront parks and restoration of historic sites and buildings are being completed along the Red River from St. Norbert to Netley Creek, north of Selkirk. Under a 12-year Canada-Manitoba agreement that has been extended to March 1990, walking and bicycling trails, picnic areas, interpretive displays, restored sites, and museums exhibiting aspects and artifacts of Red River life before 1870 are being created.

Fifteen projects have been completed. Construction of a heritage park at the forks of the Red and Assiniboine Rivers, once the site of fur trading posts, started in January 1988 and is to be completed by the end of 1988.

PROVINCIAL PARKS

The Parks Branch of Manitoba Natural Resources maintains a system of recreation areas that cover more than 15,000 km^2. The system comprises a wilderness park, nine natural parks, 43 recreation parks, approximately 70 wayside parks, six heritage parks, and two special-use parks. There are 96 campgrounds, with 5,794 campsites, and a number of hunting and fishing lodges, cabins, and hotels. Approximately 5,000 additional campsites are managed by private operators, and more than 150 commercial ventures provide services that range from marinas to restaurants.

All the major recreational centres are accessible by road. Many have self-guiding trails, hiking trails and designated canoe routes, and facilities for picnicking, swimming, or camping. Golfing, fishing, and horseback riding are available in a number of parks. To accommodate the growing numbers who take part in winter activities, downhill ski areas, cross-country ski trails, snowshoe trails, toboggan runs, and snowmobile trails have also been built.

The largest natural park is Whiteshell, which covers about 2,735 km^2 and lies next to Ontario about 145 km east of Winnipeg. It is the oldest, the most developed, and the most intensively used park in Manitoba, with 17 campgrounds and 24 picnic areas. At Alf Hole Goose Sanctuary near Rennie, visitors may watch about 200 Canada geese that visit each spring. The visitor services centre here (wheelchair-accessible) has an observation gallery, exhibits, and displays. West Hawk Lake, with a maximum depth of 111 m, is the deepest lake in Manitoba. It is believed to have been created by the impact of a meteor. At Bannock Point are petroforms consisting of stones arranged on the base rock by ancient peoples to depict turtles, snakes, fish, and birds. A plaque commemorates these boulder mosaics. At Nutimik Lake is a natural history museum (wheelchair-accessible) housed in a log cabin. The townsite at Falcon Lake is adjacent to an 18-hole golf course and close to a marina, ski resort, and stables. Within the town are bowling greens, tennis courts, and a shopping centre.

Atikaki Provincial Wilderness Park, covering more than a million acres, is the first park of its kind in Manitoba. Located northeast of Bissett, north of the Whiteshell, it is accessible only by air and water. In the Atikaki wilderness, caribou and bald eagles still outnumber people and the rivers, offering challenging whitewater rafting, are the only highways into the park. The Bloodvein River, which flows through Atikaki, is Manitoba's first Heritage River.

Beaudry Provincial Heritage Park, 20 km west of Winnipeg, is situated in the midst of a prairie landscape on the Assiniboine River. Remnants of the fast-disappearing tallgrass prairie still grow in the park, while the river-bottom forest contains some of the oldest and largest elm and cottonwood trees in the province. Plans are being made to re-establish even more of the scarce tallgrass prairie vegetation in the park.

Asessippi Provincial Park lies in a river valley 19 km north of Russell. Within the park are the historic sites of Asessippi Town and the Shell River Mill.

Baldy Mountain (831 m), Manitoba's highest elevation, is in the southeast corner of Duck Mountain Provincial Park, and is accessible by road. A sundial and two plaques on Copernicus Hill commemorate the achievements of the astronomer Copernicus.

Grand Beach Provincial Park, on Lake Winnipeg 92 km north of Winnipeg, has one of the most spectacular beaches in Manitoba, a legacy of the glacial Lake Agassiz.

In Grass River Provincial Park, about 75 km north of The Pas, is the southernmost evidence of permafrost features. The park has a herd of woodland caribou, about 150 lakes, and a low density of development, and is designated as a wilderness area.

Water-oriented Hecla Provincial Park is on the west shore of Lake Winnipeg, about 145 km north of Winnipeg. The park comprises Hecla Island (settled in 1876 by a large group of Icelanders), Black Island, and a small archipelago nearby. Hecla Village is undergoing preservation work and a self-guiding trail through the village interprets the Icelandic settlers' way of life. A major resort, with a golf course, is located at Gull Harbour on the northeast tip of Hecla Island.

Spruce Woods Provincial Heritage Park, 65 km southeast of Brandon, is on an ancient delta formed when the Assiniboine River flowed into Lake Agassiz. The features of the park include the Manitoba "desert," oxbow lakes, and some endangered species of fauna and flora. A plaque commemorates Pine Fort, a fur-trading post occupied on three separate occasions between 1767 and 1811, which lies within the park.

Clearwater Lake Provincial Park, 19 km north of The Pas, derives its name from Atikameg, an Indian word meaning "clear water." At times the visibility in Clearwater Lake is about 11 metres. Along the shore is ample evidence of the former levels of the

lake, in the numerous coves now above the water line, occupied by colonies of nesting birds.

Birds Hill Provincial Park was established in 1967 to meet the need for recreational areas close to Winnipeg, 24 km away. Open year-round, the park has large grassed areas for group activities in summer and winter, including the annual Winnipeg Folk Festival.

"Nopiming," a Saulteaux word meaning "into the wilderness," accurately depicts the numerous lakes and rivers and abundant wildlife in Nopiming Provincial Park, 210 km from Winnipeg and north of Whiteshell. Woodland caribou normally found in more northern regions are an exceptional feature of the park, as are the remains of once-productive gold mines.

Turtle Mountain Provincial Park, about 80 km south of Brandon, has more than 400 water bodies, ranging from small potholes to large lakes several acres in area. Fishing is limited to Max Lake, which is periodically stocked with northern pike. The painted turtle is a common sight in this area.

The 43 provincial recreation parks are spread across the province from north to south. The largest of these parks is Paint Lake, near Thompson.

All vacation and recreation areas are periodically expanded to provide additional camping and day-use facilities. Park programs are geared to preserve and interpret sites that reflect the human and natural history of Manitoba. Studies are made to plan and guide the development of the province's recreational facilities.

Detailed and up-to-date information on Manitoba's provincial parks can be obtained by calling (204) 945-6784.

Manitoba's Flag

The official flag of the Province of Manitoba was given royal approval by Her Majesty Queen Elizabeth II in October 1965, and was officially proclaimed May 12, 1966. This was the date in 1870 on which the Manitoba Act was given royal assent.

The flag is the Red Ensign, on which the Union Jack is placed in the upper quarter on the "staff" side, while the provincial coat-of-arms is centred in the "fly" half of the flag.

The Manitoba flag may be flown by any individual or organization in the province, but precedence is given to the Canadian flag.

Manitoba
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